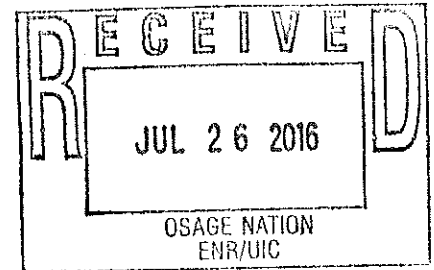


PERMIT APPLICATION PACKAGE



Rec'd
bwp-pd
7/27/16

OSAGE NATION UIC
FIRST NATIONAL BANK BLDG.
100 W. MAIN ST., STE. 304
PAWHUSKA, OK 74056
Tel: 918/287.5333
Fax: 918/287.5581

Most injection wells which are currently operating in Osage County are "Authorized By Rule" (ABR) and need not apply for an individual permit. However, wells in the following categories must apply for and receive an EPA permit to construct or operate oil and gas related injection wells in Osage County:

1. Any well constructed or completed after December 30, 1984;
2. Any *production* well converted to an injection well after December 30, 1984;
3. In a utilized operation, any new well which is not authorized by a previous permit;
4. Wells which the operator wishes to operate outside rule requirements (e.g., at a higher pressure than authorized by rule.);
5. Wells which were authorized by rule but have not been identified as one of the following:
 - a. being in violation of the rule;
 - b. no longer within the category of rule authorized well;
 - c. needing additional restrictions to protect underground source of drinking water (USDW's).***

Please include or reference all the information requested in this package so that we may quickly process your application without delay. A copy of this application package will be immediately forwarded to the Osage Agency BIA and EPA. For additional copies of the permit package, please visit our website @ www.osage-tribe.com and click on the Environmental & Natural Resources tab located on the right side of the page under Department Directory.

At any time, if you have questions about the information requested, please call our office at 918.287.5333. We will be happy to assist you.

****Operators of wells in this category will receive a letter from the Dallas EPA directing them to apply for a permit.*

To be completed by UIC Office

Well Name & No.: NBU 10-W18

Permit #: 056273.094

Date Rec'd: 7-27-2016

PERMIT APPLICATION CHECKLIST

	Attached	Not Attached	
1.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Osage Form 139, "Application for Operation or Report on Wells.
2.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Osage Form 208 "Completion Report".
3.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Copy of Plat Map showing wells within 1/4 mile radius of proposed well.
4.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Tabulation of data on wells within 1/4 mile radius including well name, company name, date drilled, depth, exact location, status of well & record of pluggings/completions.
5.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Injection well schematic showing total depth and plugback depth, depth from top & bottom of casing(s) & cemented intervals, cement amount, depth & size of casing & tubing, including depth of packer.
6.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Operating data including: type of well; maximum and average injection rate; source and analysis of injected fluids including TDS, chlorides and additives; major geological formation with top bottoms.
7.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Geological data of the injection zones including name(s), total thickness, porosity, lithologic description, permeability, injection depth, reservoir pressure/fluid level. Address the presence or absence of faults.
8.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Public Notice verifications, consisting of a list showing names, addresses, and date that notice of permit application was given or sent to the surface land owner, tenants of land where the injection well will be located, each operator of a producing lease within 1/2 mile of the well location.
9.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	All available logging & testing data of the well attached.

	Attached	Not Attached	
10.	<u>✓</u>	<u> </u>	Copy of surety bond filed with the BIA superintendent (25 CFR §266.6).
11.	<u>✓</u>	<u> </u>	Certification form signed by the well owner/operator or authorized representative. (Authorization must be attached & in writing.)
12.	YES	<u>NO</u>	Has the applicant declared any part of his submission as confidential? {147.2907}
13.	YES	NO	Is the well currently Authorized by Rule? If yes, Inventory No. <u> </u> .
14.	<u>YES</u>	NO	Was the applicant required by EPA to apply for a permit?
15.	<u>YES</u>	NO	Is the permit applicant the owner/operator. (Circle one or both.)
16.	YES	<u>NO</u>	Has the applicant requested emergency authorization to inject? If yes, attach emergency checklist.
17.	<u>YES</u>	NO	Berms and all facilities associated with saltwater system adequate?

Pawhuska Technician/Administrative Review

Date

6W-SE Reviewer

Date

Chris Tingey

8/2/2016

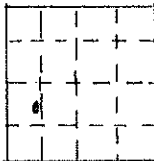
Owner/Operator: _____ Permit# _____

PERMIT TRACKING PROCEDURE CHECKLIST

<u>Date</u>	<u>Initial</u>	
_____	_____	Application logged in; Number Assigned & Receipt Date Stamped on Application.
_____	_____	Application reviewed for completeness.
_____	_____	Surety bond attached.
_____	_____	Operator notified of incompleteness.
_____	_____	Application terminated due to no response within 30 days.
_____	_____	Application determined complete & file started on well.
_____	_____	Completion letter mailed to operator.
_____	_____	Transmitted copy to BIA & EPA.
_____	_____	RBDMS data entered & well schematic prepared.
_____	_____	Date of 6-W Signature.
_____	_____	Draft Permit, Statement of Basis, Public Notice & Letter of Intent signed & mailed to operator & BIA.
_____	_____	Data Entry Accomplished.
_____	_____	Public Notice submitted to newspaper.
_____	_____	Public Notice publication verified.
_____	_____	Comment Period Ends.
_____	_____	Comments reviewed & 6W decided whether to hold public hearing. <input type="checkbox"/> YES <input type="checkbox"/> NO
_____	_____	Permit Finalized & Response to Comments prepared. (IF REQUIRED)
_____	_____	Final Permit Approved; Returned for concurrence if different from Draft Permit.
_____	_____	Final Permit, Cover Letter to Operator; Responsiveness Summary, etc. sent to applicant, Osage UIC & BIA.
_____	_____	Responsiveness Summary including Final
_____	_____	Permit decision mailed to appropriate parties.
_____	_____	Permit effective date: _____
_____	_____	Complete inventory data sheet & complete data entry.
_____	_____	Permit appealed to Administrator? <input type="checkbox"/> YES <input type="checkbox"/> NO
_____	_____	Proof of MIT mailed to Dallas.
_____	_____	Notice to operator authorizing injection.

1 - OIA
1 - File

160 Acres



UNITED STATES
DEPARTMENT OF THE INTERIOR
OSAGE AGENCY
Pawhuska, Oklahoma 74056
Report of Completed & Deepened Wells
Within the Osage Reservation

Spot well on plat. IP TRACE OIL-Barbante

TD 3090 Barbante

Specify type of well,
Oil, Gas, SWD, Dry, etc. OIL

OSWEGO-1544

One original report must be filed within
10 days after completion of well. 7

Company operating Barbante Petroleum Company Address Box 407, Chandler, Okla. 74615
Lessee Barbante Petroleum Company Lessor OSAGE TRIBE
Well No. 10-38 NE 1/4 Sec. 11 Twp. 27N Rge. 9E Farm name North Daniel Unit

Well located 2001 ft. from N line, 645 ft. from E line
KB 1175.0
Elevation DF 1190.12
GL 1155.12

Elevation and location surveyed by C. L. Williams, Barbante Petroleum CompanyDrilling contractor(s) Barbante Drilling Co. Began 2-21-73, 19 73 Finished 4-2-73, 19 73Rotary drilled interval & bit size(s) 12-1/4" hole to 1111'; 8-3/4" to 3090'Cable drilled interval and bit size(s) 12 cable tools track - rotary from 0 to TD.

Casing used in drilling			Casing left in hole		Cement used; include gel, additives	
Length	Size	Wt.	Thread	Length	Landed at	Interval cemented
1111 ft.	8 ins.	22.75 lbs./ft.	5/8 in.	1111 ft.	1111.2 ft.	1111 to 1111.2
2000 ft.	6 ins.	20 lbs./ft.	5/8 in.	2000 ft.	3090.2 ft.	1111.2 to 3090.2

Interval(s) perforated 1111 to 1111.2 holes 1 to 1; 3090 to 3090.2 holes 1 to 1Interval(s) left open 1111 to 1111.2; and method Interval(s) shut offPlug back depth 1111 to 1111.2 Packer set? Yes Setting depth 1111 to 1111.2 Packer left in? YesHow were fresh water and other zones protected? Isolation

Initial Production Before Treatment

Flow ☐ Pump ☐ Swab ☐ Bail ☐
Casing ☐ Tubing ☐ Choke size 1/2 in. Oil 3000 bbls., Gas 0 MMCF, Water 100 bbls.
Duration of test 10 hrs., Gravity 50 API SICP 0 psi SITP 0 psi
Formation treatment (shot, acid, fracture, etc.) Indicate amount of materials used (i.e., nitro, sand, water, acid, & other additives) and breakdown pressure.

Petroleum Info Completion - 4 oil 1350 Wtr.
feet to 1111.2
feet to 3090.2
feet to 3090.2

Initial Production After Treatment and Recovery of Load

Flow ☐ Pump ☐
Casing ☐ Tubing ☐ Choke size 1/2 in. Oil 3000 bbls., Gas 0 MMCF, Water 100 bbls.
Duration of test 10 hrs., Gravity 50 API SICP 0 psi SITP 0 psi
Location fee paid 1.00 Date 4-2-73 Amount, \$ 100.00
Signature M. L. Williams Position with Lessee Barbante Petroleum Company

NE 1/4 Sec. 11 T. 27 R. 50

Datum Elev. 541.12

FORMATION RECORD

Well Number 10-13

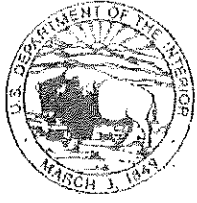
FROM	TO	FEET	Note each change in formation, i.e., sand, lime, shale, sandy shale, etc. & name key beds. Note character of each formation, i.e., color, hard, soft, caving, etc. Underreamed? Note contents of each formation, i.e., oil, gas, water, and kind of water — fresh, etc.
Surface	15	15	Well at base.
15	112	97	Shale & sand.
112	325	213	Lime w/ shale & sand streaks
325	793	473	Sandy shale with lime.
793	954	161	Sandy shale
954	1001	47	Payhucke lime
1001	1503	502	Sandy shale with lime
1503	1574	71	Lime with shale and sand
1574	2435	861	Sandy shale with lime
2435	2604	169	Sandy shale
2604	2712	108	Big lime
2712	2806	94	Osage lime
2806	2893	87	Sandy shale with lime
2893	2916	23	Lime and sandy shale
2916	3036	120	Barham Sand
3036	3090	54	Shale
	3090		TOTAL DEPTH.

Mechanical logs must be run on all wells. Furnish copies to this office, Gamma, Electric, etc.

Was well cored? ☐ Yes, enter core description, submit core analysis.

Copies of cementing service tickets should accompany this report. ☐ Yes, ☐ No

Include drill stem, wire line, etc. test information. ☐ Yes, ☐ No



U.S. GOVERNMENT PRINTING OFFICE

United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
EASTERN OKLAHOMA REGION
OSAGE AGENCY
POST OFFICE BOX 1539
PAWBUKA, OKLAHOMA 74056-1539



Branch of Subsurface Minerals

JUNE 8, 2016

Chaparral Energy, LLC
Attn: Leigh Kuykendall
701 Cedar Lake Blvd.
Oklahoma City, OK 73114

Re: Notification of Permit Approval

Dear Ms. Kuykendall:

The Bureau of Indian Affairs, Osage Agency, has received your Workover Application (attached Form 139, which is incorporated by reference). Your application along with your approved Environmental Assessment ("EA") and other required documentation for the well site was reviewed and deemed complete. It has been determined based on documentation provided to us that your proposed workover operation is consistent with applicable regulations and is within the scope of activities covered by the approved EA, Finding of No Significant Impact (FONSI) determination and Decision Record signed on May 4, 2016. Both of these EA approval documents were mailed to you by the BIA on the same date.

You may proceed with the proposed action described in your request(s), provided that you follow the conditions listed on the approved workover permit as well as any applicable best management practices or similar mitigating efforts approved by the Superintendent, described in Attachment A (incorporated by reference in this letter), for the following locations in Osage County, Oklahoma:

Lease No.	BIA Tracking #	Well #	Qtr	Sec	Town (N)	Range (E)
IND-25667-0	16G06427045	18W	NE	11	27	5

Your ability to commence these activities is effective for two (2) years from the Agency Superintendent's approval date found on the enclosed permit. All activities must be conducted in compliance with the requirements of the Oil & Gas Mining Lease, the regulations at 25 C.F.R. Part 226 (particularly the operations and cessation regulations at 25 C.F.R. §§ 226.16-.41), and other applicable law; for example, the requirements of 36 C.F.R. §800.4(a); the National Historic Preservation Act, Section 211, 16 U.S.C. § 470(s); and the Occupational Safety and Health Act regulations at 29 C.F.R. § 1910.1200. You should make sure that a copy of this Letter and the approved permit is available at the well site.

If you should have any questions, please do not hesitate to call Mr. Augustine Kun, Petroleum Engineering Technician, Branch of Subsurface Minerals, at (918) 287-5770.

Sincerely,

A handwritten signature in black ink, appearing to be 'A. Kun', with a long horizontal line extending to the left.

Petroleum Engineer

Enclosures: Permit, Attachment A, Downhole Conditions of Approval, Form 139(s)

Revised March 2015

BUREAU OF INDIAN AFFAIRS
OSAGE AGENCY
WORKOVER PERMIT

LESSEE: Chaparral Energy LLC
PERMIT No. # 16G06427045

APPROVAL DATE _____
WELL No. 18W _____
LEGAL: NE 11-27-05 _____

This permit shall remain in effect for two (2) years from date of approval or until the end of the lease, whichever occurs first. This permit is approved under the following conditions:

1. The work described in the attached Form 139 is approved subject to the following conditions.
2. That within 10 days following completion of work done, a supplemental report on Form 139 shall be submitted to this office detailing the work performed and the results obtained.
3. The above mentioned report shall contain details of perforating, stimulation (acidizing and/or fracturing), depth of any bridge plugs, cement retainers and/or packers, and any other relevant work performed on the well.
4. The furnished report shall contain a comparison of production or injection rate before and after the permitted work. Injection information should include both rates and pressures, while production wells should show oil, gas and water production rates.
5. If any cementing is authorized under this permit, copies of cement tickets showing amount and type of cement used, listing any additives to the cement, and specifying who performed the cement work shall be included with the report, and the report shall clearly describe the cementing work done.
6. Should an electrical log of any type be run during the work-authorized by this permit, or should any samples of rock and or reservoir fluid be taken, copies of such logs, and/or the analyses of such samples shall be furnished to this office.
7. All work performed under this permit shall be done in accordance with all applicable Federal Regulations and no release of fluid into the environment is authorized.
8. The conditions contained in Attachment A are hereby incorporated by reference.

Prepared by: [Signature]

Date: 5/19/2016

Recommended by: [Signature]
Supervisory Petroleum Engineer

Date: 5/24/2016

Approved by: [Signature]
Superintendent

Date: MAY 19 2016

Bureau of Indian Affairs

Osage Indian Agency

Pawhuska, OK 74056

Permit Downhole Conditions of Approval

Re-Entry and Conversion to Injection Well

Operator: Chaparral Energy

Well Name: North Burbank Unit 18W

Legal Description: NE Section 11, T27N R5E

1. Per EPA instruction, 5 days prior to beginning operations the EPA, Osage ENR and BIA-Osage Indian Agency (BIA-OIA) shall be notified. Notify the EPA Field Inspector by phone at 918-605-1643 or 918-292-8652.
2. Lessee will Provide EPA field inspector and BIA-OIA PE or PET with the procedure in which the conversion will be done including all injection zones, anticipated pressure, fluid volume and flowrate, type of zone isolation, type of injection tubing used, and all cementing programs.
Please note: All well conversions should be done under EPA guidelines and UIC programs
3. Any operation beyond the proposed workover will require further approval by the EPA per EPA instruction.
4. Within 10 days after completion of the proposed workover, the Lessee shall submit Form 139, Work Completed, to the Superintendent. The report must show at least the following:
 - Current wellbore configurations
 - Results and type of Mechanical Integrity test
 - Depths of casing damage if any along with methods used to locate damaged casing
 - Injection rate, pressure, and cumulative volume, observed weekly for disposal and monthly for injection
 - Injection zones
 - Methods used to isolate injection zones
 - Anticipated ground water monitoring
 - Depths of any plugs left in the wellbore
 - Cementing programs: Cement quantities, types of cement, and cement additives used
5. This approval does not alter any other Conditions of Workover Operations.

Contact Information

Jeff Hunt
Engineering Branch Chief Office:
(303)-842-4538
jeffrey.hunt@bia.gov

Augustine Kun
Petroleum Engineer
Office: (918)-287-5772
augustine.kun@bia.gov

Fionna Frazier
Petroleum Engineer
Cell: 575-518-9032
fionna.frazier@bia.gov

Date Prepared:	5/18/2016	Type of Action:	Convert/Formation Treatment	
Lessee:	Chaparral Energy, LLC		Tracking Number:	16G06427045
Well Number:	18W	Lease Name:	North Burbank Unit	
Legal Description:	NE	11	27	5
	Quarter	Section	Township (N)	Range (E)

Bureau of Indian Affairs, Osage Agency
Conditions for Workover Operations
ATTACHMENT A - Osage Form No. 139

The following forms must be kept at the project site at all times during the workover operation(s): (1) the Osage Agency Form No. 139, (2) Attachment A for Osage Form No. 139 which identifies all of the conditions of approval of workover operations in Osage County (listed below), and (3) the Workover Review form which will be provided to the Lessee/Operator upon confirmation of approval by the Agency.

General Requirements

All lessees must comply with the requirements of 25 CFR 226, including but not limited to:

- § 226.22 Prohibition of Pollution.
- § 226.19 Use of Surface Lands – Lessee must conduct operations in a workmanlike manner, commit no waste and not create any unavoidable nuisance on the premises under his/her control.

Workover operations must be contained to the historic well pad in order to minimize impacts to the affected environment. This must be documented through the submission to the Osage Agency of photographs taken before the proposed activities commence and after activities have ceased.

For each workover operation a minimum of seven (7) dated photographs must be submitted as supporting documentation with the Form 139 in order to depict the existing condition of the well pad and existing facilities as described below.

- 1 photo of the well sign
- 1 photo of the well head (well bore/pumping unit location)
- 1 photo of the lease road, showing ingress and egress to the proposed workover location
- 4 photos taken in the following manner: stand at the center of the well pad and take 1 photo facing each direction (North, East, South and West)

All lessees must comply with, and obtain any necessary permits or authorizations required under the federal Clean Water Act, Clean Air Act, Safe Drinking Water Act, Endangered Species Act and other applicable federal laws.

In addition, the following standard BIA Osage Agency Best Management Practices (BMPs), known as "Attachment A", shall apply, unless the Superintendent has given prior written approval of either 1) an exemption to a specific standard BIA Osage Agency BMP, and 2) an equivalent set of BMPs developed by the Lessee.

Standard BMPs

1. Avoid impacts to National Register-eligible or unevaluated cultural resources on well sites and access roads. If cultural resources are discovered during construction or operation, stop work immediately, secure the affected site, and notify the BIA and Tribal Historic Preservation Officer. In the event of a discovery, work in that area shall halt and not resume until written authorization to proceed has been received from the BIA. All surface disturbances must be kept within the confines of the historic well pad described in the application package. Expansion or relocation of the well pads, access roads, or other implementation of additional activities outside of the area specified in the application is prohibited unless an appropriate cultural resources survey has been submitted and determined adequate, approved by the BIA Osage Agency and all appropriate authorizations have been obtained.

Date Prepared:	5/18/2016	Type of Action:	Convert/Formation Treatment		
Lessee:	Chaparral Energy, LLC		Tracking Number:	16G06427045	
Well Number:	18W		Lease Name:	North Burbank Unit	
Legal Description:	NE	11	27	5	
	Quarter	Section	Township (N)	Range (E)	

2. Avoid or minimize soil and vegetation disturbance. Avoid removal of or damage to trees, shrubs, and groundcover to the extent possible. Avoid or minimize alteration of the natural topography, and limit activities on steep slopes.
3. Erosion control measures are required for the duration of all implementation phases of the proposed project. Erosion control measures must effectively minimize the movement of soil, debris or contaminants from the project site to adjacent lands and waterways.
4. All vehicles and equipment must utilize and stay confined to existing roads described in the approved EA. These roads must be maintained and upgraded as needed according to BIA direction and agreements between the operator and surface owners.
5. Tank batteries must have a Spill Prevention and Control and Countermeasure Plan (SPCC) in compliance with EPA Regulations under 40 CFR Part 112. A fluid impermeable secondary containment dike/berm must be constructed around any tank battery and facilities according to 40 CFR 112.7. The dike/berm and entire containment area must be graveled. No water collected within the secondary containment shall be discharged. In accordance with the SPCC plan and the BIA regulations, the Lessee will immediately notify the BIA of all spill incidents.
6. No venting or flaring of gas is allowed unless prior written approval of the BIA Osage Agency Superintendent has been obtained.
7. Store and label chemicals properly (including secondary containment). Do not store equipment or chemicals onsite if they are not being used on site. Do not leave open containers of chemicals or wastes on site.
8. Keep sites clean and free of any litter, trash, old equipment, contaminated soil or unused containers. Promptly dispose of any wastes at appropriate recycling facility, approved landfill or other approved location. Remove any unused equipment not necessary to the operation of the lease after drilling activities have been completed.
9. All production equipment, facilities and tanks including well-head and above-ground piping/equipment shall be properly enclosed to exclude livestock if present.
10. All pits (including tank batteries contained within a dike/berm) must be enclosed with a fence of at least four strands of barbed wire, or approved substitute. All earthen pits to be used for storage of salt water or other deleterious substances must be lined with an impermeable layer to prevent contamination of soils and groundwater. Temporary pits must be filled and leveled immediately upon completion of the activity.
11. To the extent possible, minimize disturbance to land owners, wildlife, and natural resources due to noise, excessive traffic, dust or other impacts associated with operations.
12. Do not conduct activities within stream channels or wetlands without proper authorization, and avoid any discharge of soil or contaminants or removal of stream water that could result in a violation of applicable federally-approved water quality standards.
13. Restore disturbed areas by re-establishing vegetation using seed, sod or other approved method, and add clean soil to disturbed areas if necessary. Restore with native species unless otherwise directed by the surface owner in writing and approved by the BIA. No noxious or invasive species may be used in revegetation and reclamation activities.

Date Prepared:	5/18/2016	Type of Action:	Convert/Formation Treatment		
Lessee:	Chaparral Energy, LLC		Tracking Number:	16G06427045	
Well Number:	18W	Lease Name:	North Burbank Unit		
Legal Description:	NE	11	27	5	
	Quarter	Section	Township (N)	Range (E)	

14. Upon conclusion of workover operations all areas of the surface disturbance (i.e. well pad, access road, pipeline, etc.) shall be promptly reclaimed as described in the permit and approved Programmatic EA for workover operations. After a well is no longer in production, reclamation of the site will begin promptly. Reclamation shall be completed not later than ninety (90) days from rig removal, well abandonment, conclusion of workover operations or final plugging of a well, unless otherwise approved by the BIA.
15. The lessee shall conduct activities in a manner that avoids any potential incidental take or harm to federally-listed threatened and endangered species, or in a manner that complies with any permit or authorization issued by the U.S. Fish and Wildlife Service (USFWS).

Lessee must follow guidance in the USFWS "Oklahoma Ecological Services Field Office Migratory Bird and Eagle Impact Avoidance Measures for Actions Associated with Oil and Gas Projects (April 2014), found at the following website: http://www.fws.gov/southwest/es/oklahoma/documents/abb/abb_icp/migbird%20and%20eagle%20avoidance%20measures%20april2014.pdf

16. Lessee must follow USFWS established protocol regarding areas where the American burying beetle (ABB) is known or suspected to exist. See <http://www.fws.gov/southwest/es/oklahoma/ABBICP.htm>. If proposed operations require the construction of a drilling pit or other excavation activity by heavy equipment, then the lessee must ensure that suitable habitat for the ABB does not exist. If proposed operations will impact suitable habitat for the ABB, it will be the responsibility of the lessee to obtain authorization from the USFWS to proceed with that portion of the project.
17. Approval must be obtained from the Environmental Protection Agency prior to the commencement of workover operations related to underground injection, construction or conversion of saltwater injection/disposal wells.

Site-Specific BMPs and Special Instructions

1. Air Quality: For proposed drilling operation in areas where formations will be penetrated which have zones suspected of containing H₂S of 100PPM in the gas stream, Lessee will implement the Air Quality BMPs listed in their Environmental Assessment, which are hereby incorporated by reference.
2. American Burying Beetle: If the proposed ground disturbing activities have not commenced by the beginning of the next active season (2016) lessee must perform another round of ABB presence absence surveys and submit those valid survey results to the results to the BIA and the USFWS. If subsequent surveys are positive for the presence of the ABB then additional consultation with USWS must be initiated between the BIA and the USFWS before drilling operations may commence.

United States
Department of the Interior
Osage Indian Agency
Pawhuska, Oklahoma

Contract No: IND-25467-0
Rest/Non-Rest: _____
Permit No: 16506427045

Date: January 28, 2016

Application For the Operation or Report on Wells

North Burbank Unit Tract 10

Chaparral Real Estate, LLC January 4, 2016 \$5,000.00
(Commencement money paid to whom) (Date) (Amount)

Well No.: 18W is located 990 Ft. from S line and 625 Ft. from W line
NE/4 Sec. 11 27N 5E Osage County, Oklahoma
(1/4 Sec. & Sec. No.) (Twp) (Range)

Lat/Long 36.83543 / -96.73203
The elevation of the kelly bushing above sea level is 1175 Ft.

Use This Side to Request Authority for Work

(Three Copies Required)

Notice of Intention To:

Drill..... ☐
Plug..... ☐
Deepen or plug back.. ☐
Convert..... ☒
Pull or alter casing..... ☐
Formation Treatment.. ☒
Workover..... ☒

Details of Work

Drilling applications will state proposed TD & formation to be tested. Show size & depth of casing to be used. Include proposed mudlogging, cementing & other uses.
Plugging applications shall set forth reasons for plugging & detailed statement of proposed work.
Conversion will not require work to back fill casing beyond data and/or analysis generated by surface completion.
A 11/2" diameter hole is required with each workover plug.

0 Bbls oil 0 Bbls water in 24 hrs

Workover well and equip for injection by the following procedure:
Test 7" production csg above cmt plug @ 2150'. If csg tests bad, RIH w/7" pkr and isolate csg leak. Squeeze csg leak. If csg tests good, drill to top of CIBP @ 3000', do not drill out. Circulate csg clean. Verify csg test. Drill out CIBP (bottom @ 3008'). Make sure mud is heavy enough to handle pressure from Burbank. Drill to 3090'. Circulate hole clean, POH. RIH w/treating pkr, set @ 2950'. Treat formation to clean up remnants of polymer. POH w/pkr. RIH w/AS-1X pkr and 2-7/8" TK-70 lbg. J-off pkr and circulate out mud. Begin injection when EPA approval is received.

I understand that this plan of work must receive approval in writing of the Osage Indian Agency before operations may be commenced.

Lessee: Chaparral Energy, LLC

Signature: _____

Leigh Ruykendall

Title: Engineering Tech Specialist

Address: 701 Cedar Lake Blvd., Oklahoma City, Oklahoma 73114

Use This Side To Report Completed Work

(One Copy Required)

Character of Well (oil, gas or dry)

Subsequent Report of: _____

Conversion..... ☐
Formation Treatment.. ☐
Altering casing..... ☐
Plugging Back..... ☐
Plugging..... ☐

Details of Work & Results Obtained

COPY

Work commenced: _____

Work completed: _____

(Continue on reverse if necessary)

This block for plugging information only

Casing Record

Size	In Hole Well Number	Ann. Pressure	Witness	Depth	Flow

Original TD

Lessee: _____

By: _____

Subscribed and sworn to before me this _____ day of _____, 2011.



IN REPLY REFER TO:

United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
EASTERN OKLAHOMA REGION
OSAGE AGENCY
POST OFFICE BOX 1539
PAWHUSKA, OKLAHOMA 74056-1539



Branch of Enforcement and Lease Compliance

Chaparral Energy, LLC
Attn: Leigh Kuykendall
701 Cedar Lake Blvd.
Oklahoma City, OK 73114

MAY 4 2015

Dear Ms. Kuykendall:

The Bureau of Indian Affairs (BIA), Osage Agency, has received for review your revised Environmental Assessment (EA) concerning the approval of a workover permit for the following well located in Osage County, Oklahoma:

Well Name	Quarter, Section, Township, Range	Lease #
NBU 10-18W	NE ¼ of Section 11 Township 27 North, Range 5 East	IND-25667-0

The BIA has analyzed and reviewed the EA for compliance with Title 43, Code of Federal Regulations, Part 46, Implementation of the National Environmental Policy Act (NEPA) of 1969 for the Department of Interior, and 59 IAM 3-H, the BIA NEPA Guidebook. The EA has been approved and the Agency has determined that a Finding of No Significant Impact (FONSI) is appropriate. For your reference, enclosed are copies of the FONSI and a Notice of Availability (NOA). Based on the FONSI, the BIA also determined that it is appropriate to approve the drilling permits for the well described above and we enclose a copy of the Decision Record.

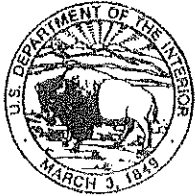
If additional assistance is required, please contact Mr. Benjamin Daniels, Supervisory Environmental Protection Specialist, Osage Agency, at (918) 287-5700.

Respectfully,

ACTING Superintendent

Enclosure(s): Finding of No Significant Impact; Notice of Availability, Decision Record

cc: Chairman, Osage Nation Minerals Council.



IN REPLY REFER TO:

United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
EASTERN OKLAHOMA REGION
OSAGE AGENCY
POST OFFICE BOX 1539
PAWBUKA, OKLAHOMA 74056-1539



FINDING OF NO SIGNIFICANT IMPACT
Osage Nation, Osage County, Oklahoma

Chaparral Energy, LLC.
Environmental Assessment
For (1) Workover Permit Application(s)

Well Name	Quarter, Section, Township, Range	Lease #
NBU 10-18W	NE ¼ of Section 11 Township 27 North, Range 5 East	IND-25667-0

SUMMARY:

Request to approve the above listed workover permit application for the applicant, Chaparral Energy LLC., located in Osage County, Oklahoma.

FINDING OF NO SIGNIFICANT IMPACT:

On the basis of the information contained in the Environmental Assessment (EA) and all other information available to me, it is my determination that (1) implementation of the Proposed Action Alternative, Alternative B, will not have significant environmental impacts beyond those already addressed in the EA. Alternative B will have no significant impact on the quality of the human environment. Therefore, in accordance with Section 102 (2) (c) of the National Environmental Policy Act of 1969, as amended, an environmental impact statement is not necessary and will not be prepared.

This finding is based on my consideration of the Council on Environmental Quality's (CEQ) criteria for significance (40 CFR '1508.27), both with regard to the context and to the intensity of the impacts described in the EA.

CONTEXT:

Mineral development (i.e., oil and gas) is a long-standing and common land use within Osage County. The United States holds the Osage Mineral Estate in trust for the benefit of the Osage and is responsible for administering the development of mineral resources, including permit approvals that are needed for the BIA to fulfill a portion of its trust responsibility to the Osage and facilitate the development of the mineral estate. The EA evaluated potential impacts to the human environment, for both the No Action Alternative, Alternative A, and the Proposed Action Alternative, Alternative B. Under Alternative A, the proposed approval of drilling permits would not occur, and the resulting lack of potential development of the minerals estate would lead to negative socio-economic impacts to the Osage. The Department of the Interior's authority to implement a "no action" alternative that precludes development is limited. An oil and gas lease grants the lessee the "right and privilege to drill for, mine, extract, remove, and dispose of

COPY

all oil and gas deposits" in the leased lands, "subject to the terms and conditions incorporated in the lease." Alternative B would allow for the approval of drilling permits and would likely result in positive economic impacts to the Osage. Under both the No Action and the Proposed Action Alternatives, there would be no significant impacts to the environment. Therefore, the decision was made to select the Proposed Action Alternative and to not select the No Action Alternative.

INTENSITY:

The implementation of Alternative B will result in beneficial effects in the form of energy and revenue production for the Osage, however, there will be adverse effects to the environment. Mitigation measures have been included with Alternative B to prevent significant adverse environmental effects.

Alternative B does not pose a significant risk to public health and safety. Relevant scientific literature and professional expertise were used in preparing the EA. The scientific community is reasonably consistent with their conclusions on environmental effects relative to oil and gas development. Research findings on the nature of the environmental effects are not highly controversial, highly uncertain, or involve unique or unknown risks. No environmental issues related to the proposed action were identified and the EA discloses the environmental consequences of the proposed action. Protective measures will be taken to protect air and water quality as outlined in the Environmental Consequences section of the EA.

There are no cultural or historical resources present that will be adversely affected by the selected alternative. No species listed under the Endangered Species Act or their designated critical habitat will adversely be affected. The selected alternative will not have any anticipated effects that would threaten a violation of Federal law or requirements imposed for the protection of the environment.



Superintendent
Osage Agency
Eastern Oklahoma Region
Bureau of Indian Affairs
U.S. Department of the Interior

Date



IN REPLY REFER TO:

United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
EASTERN OKLAHOMA REGION
OSAGE AGENCY
POST OFFICE BOX 1539
PAWBUKA, OKLAHOMA 74056-1539



UNITED STATES DEPARTMENT OF THE INTERIOR

AGENCY: BUREAU OF INDIAN AFFAIRS, OSAGE AGENCY

ACTION: NOTICE

SUMMARY: This Notice advises the public that a final Environmental Assessment (EA) and a Finding of No Significant Impact (FONSI) are available to the public and concern the approval of the following (1) workover permit application(s) for the applicant, Chaparral Energy LLC., located in Osage County, Oklahoma:

Well Name	Quarter, Section, Township, Range	Lease #
NBU 10-18W	NE ¼ of Section 11 Township 27 North, Range 5 East	IND-25667-0

Based on the EA issued and approved by the Agency, it has been determined that the action will not result in significant impacts to the quality of the human environment; therefore an Environmental Impact Statement is not required. This Notice is furnished as required by the National Environmental Policy Act (NEPA) regulations, Title 40, Code of Federal Regulations (CFR), Part 1506.6(b), to provide public notice of the availability of documents and inform those persons and agencies who may be interested or affected. The FONSI is a finding on environmental effects and not a decision to proceed with an action; therefore, the decision cannot be appealed.

DATES: The Notice will be posted for 30 days from the approval date of this notice. Individuals wishing copies of this EA should contact the BIA at (918) 287-5700.

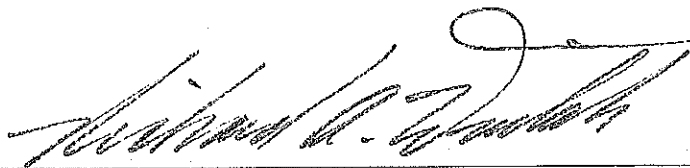
ADDRESS: Written requests for copies of the EA should be addressed to: Superintendent,

COPY

Bureau of Indian Affairs, Osage Agency, P.O. Box 1539, Pawhuska, Oklahoma 74056,
Telephone Number: (918) 287-5700.

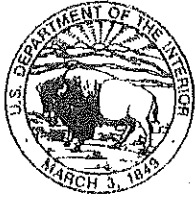
FOR FURTHER INFORMATION CONTACT: Mr. Benjamin Daniels, Supervisory
Environmental Protection Specialist, Bureau of Indian Affairs, Osage Agency, P.O. Box 1539,
Pawhuska, Oklahoma 74056, Telephone Number: (918) 287-5700.

SUPPLEMENTAL INFORMATION: This Notice is furnished as required by the National
Environmental Policy Act (NEPA) regulations, Title 40, Code of Federal Regulations (CFR),
Part 1506.6 and 1506.6(b), to provide public notice and to inform those persons and agencies
who may be interested or affected. The proposed action requires the approval of permit to drill
application(s) by the Osage Agency which constitutes a Federal action under the governing
regulations for compliance with Section 102(2) of NEPA and requires a concise public document
to be prepared that analyzes environmental impacts to the human environment. The EA has been
prepared in accordance with the requirements of NEPA, as amended, (Title 42 U.S.C. 4321), the
U.S. Department of the Interior Manual, (516 DM 10), and other applicable environmental
statutes and regulations.



Superintendent
Osage Agency
Eastern Oklahoma Region
Bureau of Indian Affairs
U.S. Department of the Interior

Date



IN REPLY REFER TO:

United States Department of the Interior
BUREAU OF INDIAN AFFAIRS
EASTERN OKLAHOMA REGION
OSAGE AGENCY
POST OFFICE BOX 1539
PAWTHUSKA, OKLAHOMA 74056-1539



**DECISION RECORD
FOR
Chaparral Energy, LLC
Environmental Assessment
For (1) Workover Permit Application(s)
In
Osage County, Oklahoma**

DECISION: It is my decision to authorize and approve Alternative B, the Proposed Action Alternative, as described in the attached Environmental Assessment (EA) and to authorize the following Application for Workover Permit for Chaparral Energy, LLC (Chaparral):

Well Name	Quarter, Section, Township, Range	Lease #
NBU 10-18W	NE ¼ of Section 11 Township 27 North, Range 5 East	IND-25667-0

This approval is subject to Chaparral's adherence to best management practices (BMPs) and other requirements incorporated into the workover permit as conditions of approval (COAs), as well as mitigation and monitoring requirements described in the attached Environmental Assessment (EA).

Operator Committed and Site-Specific Mitigation Measures:

As a result of the onsite inspection and review of available site-specific information, BIA identified several mitigation measures that were incorporated into the EA as BMPs and into the permit(s) as COAs to mitigate resource impacts. For a complete description of all BMPs associated with this approval, see Section 5.0 of the attached EA. COA's for the above described drilling permits have been applied to reduce, mitigate or prevent impacts to the following resources:

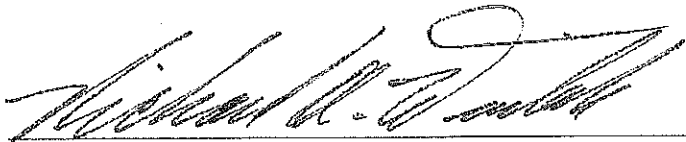
- Land Resources, Water Resources, Air Quality, Living Resources, Cultural Resources, Socioeconomic Conditions, Public Health and Safety

RATIONALE: The decision to authorize the proposed action will not result in any undue or unnecessary environmental degradation. The lessee has the right to develop their existing lease provided no significant adverse or irreversible impacts occur to critical resources. BIA selected mitigation measures from the alternatives analyzed in the EA that would best meet the purpose and need, and is applying site-specific measures to alleviate environmental impacts.

ADMINISTRATIVE REVIEW AND APPEAL: This decision may be appealed to the Regional Director, Bureau of Indian Affairs, Eastern Oklahoma Regional Office in accordance with the regulations set forth under 25 CFR Part 2. Your notice of appeal must be filed in this office within 30 days of the date you receive this decision. The date of filing your notice of

COPY

appeal is the date it is postmarked or date it is personally delivered to this office. Your notice of appeal should clearly identify the decision being appealed. If possible, attach a copy of the decision. The notice and the envelope in which it is mailed should be clearly labeled "Notice of Appeal". Your notice of the appeal must list the names and addresses of the interested parties known to you and must certify that you have sent copies of the notice to these parties. You must also send a copy of the notice of appeal to the Regional Director, Bureau of Indian Affairs, Eastern Oklahoma Region, P.O. Box 8002, Muskogee, Oklahoma 74402-8002. If you are not represented by an attorney, you may request assistance from this office in the preparation of your appeal. If the appeal is not timely filed, this decision will become final for the Department of the Interior at the expiration of the 30-day appeal period. No extension of time can be granted for filing the notice of appeal.



Superintendent
Osage Agency
Eastern Oklahoma Region
Bureau of Indian Affairs
U.S. Department of the Interior

Date

United States
Department of the Interior
Osage Indian Agency
Pawhuska, Oklahoma

Date: July 18, 2016**Application For the Operation or Report on Wells**

North Burbank Unit Tract 10
Chaparral Real Estate, LLC January 4, 2016 \$5,000.00
(Commencement money paid to whom) (Date) (Amount)

Well No.: W18 is located 990 Ft. from S line and 625 Ft. from W line
NE/4 Sec. 11 27N 5E Osage County, Oklahoma
(1/4 Sec. & Sec. No.) (Twp) (Range)

The elevation of the kelly bushing above sea level is 36.83543 / -96.73203
1175 Ft.

Use This Side to Request Authority for Work

(Three Copies Required)

Notice of Intention To:

- Drill..... ☐
Plug..... ☐
Deepen or plug back.. ☐
Convert..... ☐
Pull or alter casing.... ☐
Formation Treatment.. ☐
..... ☐

Details of Work

Drilling applications will state proposed TD & horizons to be tested. Show size & length of casing to be used. Indicate proposed mudlogging, cementing & other work.

Plugging applications shall set forth reasons for plugging & detailed statement of proposed work.

Plugging will not commence until 10 days following approval date unless authority granted for earlier commencement.

A \$15.00 plugging fee is also required with each application to plug.

0 Bbls oil 0 Bbls water in 24 hrs

I understand that this plan of work must receive approval in writing of the Osage Indian Agency before operations may be commenced.

Lessee:

Signature: _____

Title: _____

Address: 701 Cedar Lake Blvd., Oklahoma City, Oklahoma 73114**Use This Side To Report Completed Work**

(One Copy Required)

Character of Well (oil, gas or dry) Injector

- Subsequent Report of:
Conversion..... ☒
Formation Treatment.. ☒
Altering casing..... ☐
Plugging Back..... ☐
Plugging..... ☐

Details of Work & Results Obtained

MIRU equipment. Test csg to 500 psi, held. TIH w/6-1/8" bit on workstring. Drill cement from 500' to 580' and fall free. TIH to 2145', hit cement. Drill out to 2580' and fall free to CIBP at 2994' GL. Push plug into open hole, fall free to 3090'. Drill from 3090' to new TD at 3110'. POH, LD workstring. TIH w/7" Arrowset 1X pkr on 100 jts of new 2-3/8" tbg. Set pkr @ 2990'. Pump 330 gals xylene w/10 gals emulsifier. Displace w/30 bbls lease water w/5 gals biocide. Spot total of 3550 gals 15% NEFe w/StimOil @ avg rate of .5 bpm @ 500 psi. Flush w/200 BLW.

Work commenced: 6/18/2016Work completed: 7/16/2016

(Continue on reverse if necessary)

This block for plugging information only**Casing Record**

Size	In Hole When Started	Ann. Recovered	If Parted	How
			Depth	

Original TD

Lessee: Chaparral Energy, LLC

By: Laura Kuyken

Subscribed and sworn to before me this _____ day of _____, 2011.

WELL OPERATION & GEOLOGICAL DATA

Permit Number _____

~~CONFIDENTIAL DATA~~Type of Injection Well: EOR
(EOR / SWD / HC Storage)

(New / Conversion / Authorized By Rule)

Injection:Rate (B/D): Average 2000 BW, 4000 MCF Maximum 4000 BW, 6000 MCFFluid: Tds 113,400 sp. Gr. 1.079 Analyses Included: (Yes / No)Source (Formation name): BurbankWill anything be added to the water to be injected? (Yes / ~~Yes~~)What will those additives be? Biocide + Oxygen scavenger if needed**Geologic Data:***All references to depths are below land surface.*Injection Intervals: 3002 to 3124; _____ to _____Formation Name Burbank Lithology Sandstone Porosity (%) 15Permeability (md) 32 Total formation thickness 94Perforated or open hole interval 3017' - 3124'

Formation Name _____ Lithology _____ Porosity (%) _____

Permeability (md) _____ Total formation thickness _____

Perforated or open hole interval _____

Current Fluid Level in Well _____ ft. (below land surface) and / or

Current Reservoir Pressure 1600 Date 7/19/2016Drill Stem Test (~~Yes~~ / No) If yes, attach copy.Depth of nearest fresh water well(s) 150 ft.**Facilities Associated with Injection Well:**Adequate Berm around tank battery? (Yes / ~~Yes~~)Leaking Flow Lines? (~~Yes~~ / No)**Formation:**

Top/Bottom From PBTD to Surface.

Burbank	3002'	/	3096'
		/	
		/	
		/	
		/	

API/WI 35113213390000	Enertia ID# 6255.0059.001	County OSAGE	State/Pro. OK	Surface Legal Location SEC 11-27N-5E	Well Config VERTICAL	Well Status SUSPENDED	District SHIDLER	Field Name
Ground Elevation (ft) 1,174.00	KB-Ground Distance (ft) 1.00	Spud Date 3/27/1973	Rig Release Date	On Production Date	Total Depth All (TVD) (ftKB)			

VERTICAL - Original Hole, 8/2/2016 4:29:39 PM

TVD
(ftKB)

Vertical schematic (actual)

Surface Casing
112' KB

Production Casing
3017' KB

Production Casing
3017' KB

Wellbore

Wellbore Name Original Hole	Max TVD (ftKB)	Max DLS (7100ft)
Section Des	Size (in)	Act Top (ftKB)
Surface	13 3/4	0
Production	8 3/4	3,017
Openhole	6 1/8	3,017

Casing Strings

Csg Des	Set Depth (ftKB)	OD Nom Max (in)	ID Nom Min (in)	WL Len (ft)	Grade	Len (ft)
Surface	112	10 3/4	10.192	32.75	H-40	112.00
Production	3,017	7	6.466	20.00	J-55	3,017.00

Tubing

Tubing Description	Set Depth (ftKB)	OD Nom (in)	WL (ft)	Grade	Wellbore Original Hole
Tubing	2,990	6 1/2	4.70	J-55	
Packer		6 1/2	5.00		

Cement

Des. Produc. Casing Cement	String Production, 3,017ftKB	Fluid Lead	Class	Amo. 55	Comment	Top... 2,990	Bot... 3,017
----------------------------	------------------------------	------------	-------	---------	---------	--------------	--------------

Surface Casing Cement; 0-112'KB
Cmtd w/125sk reg cmt & 2% CC to surf

Surface Casing Cement; 0-475'KB
Cmtd w/600sk reg cmt

Production Casing Cement;
Cmtd w/65sk Class H 30% DD 2% CC
TOC @ 2250

Packer set
475' from bp
of perforation
3017-2985
= 32'
yes ✓

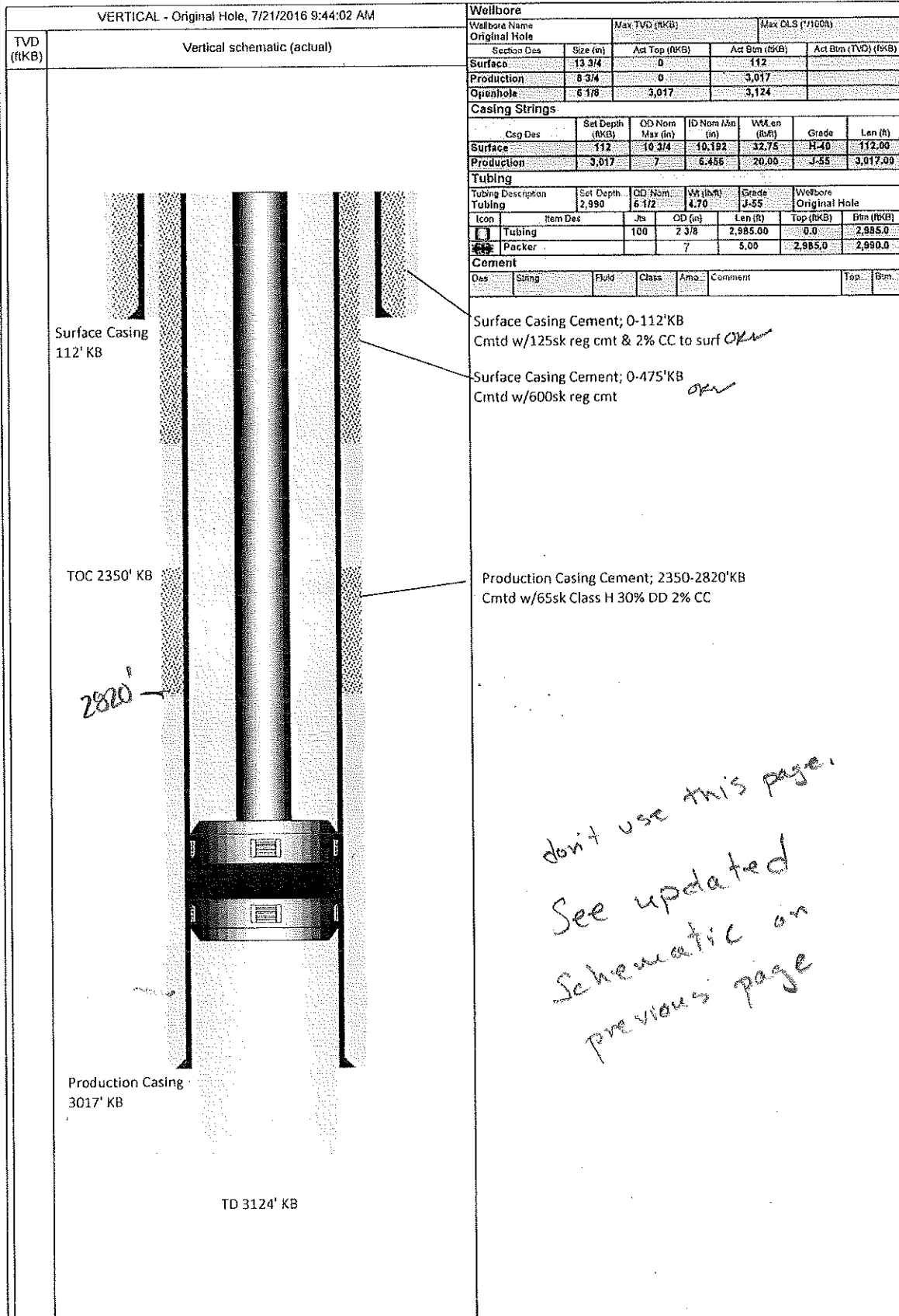
125 sk x 1.18 ft³ x 2.4945 = 360' ✓

Cement behind casing through USDW to 50' below base of USDW
yes ✓
600 sk x 1.18 ft³ x 6.6520 ft = 4710' ✓

65 sk x 1.18 ft³ x 6.6520 ft = 510' ✓
with 30% DD it would be more.
See submitted CBL

Handwritten text, possibly a signature or date, located in the lower-left quadrant of the page.

APIA/WA 35113213390000	Enerba ID# 5255.0069.001	County OSAGE	State/Pro OK	Surface Legal Location SEC 11-27N-5E	Well Config VERTICAL	Well Status SUSPENDED	District SHIDLER	Field Name
Ground Elevation (ft) 1,174.00	KB-Ground Distance (ft) 1.00	Spud Date 3/27/1973	Rig Release Date	On Production Date	Total Depth All (TVD) (ftKB)			



Chaparral Energy, LLC

NBU #10-W18

1/4 Mile Areas of Review

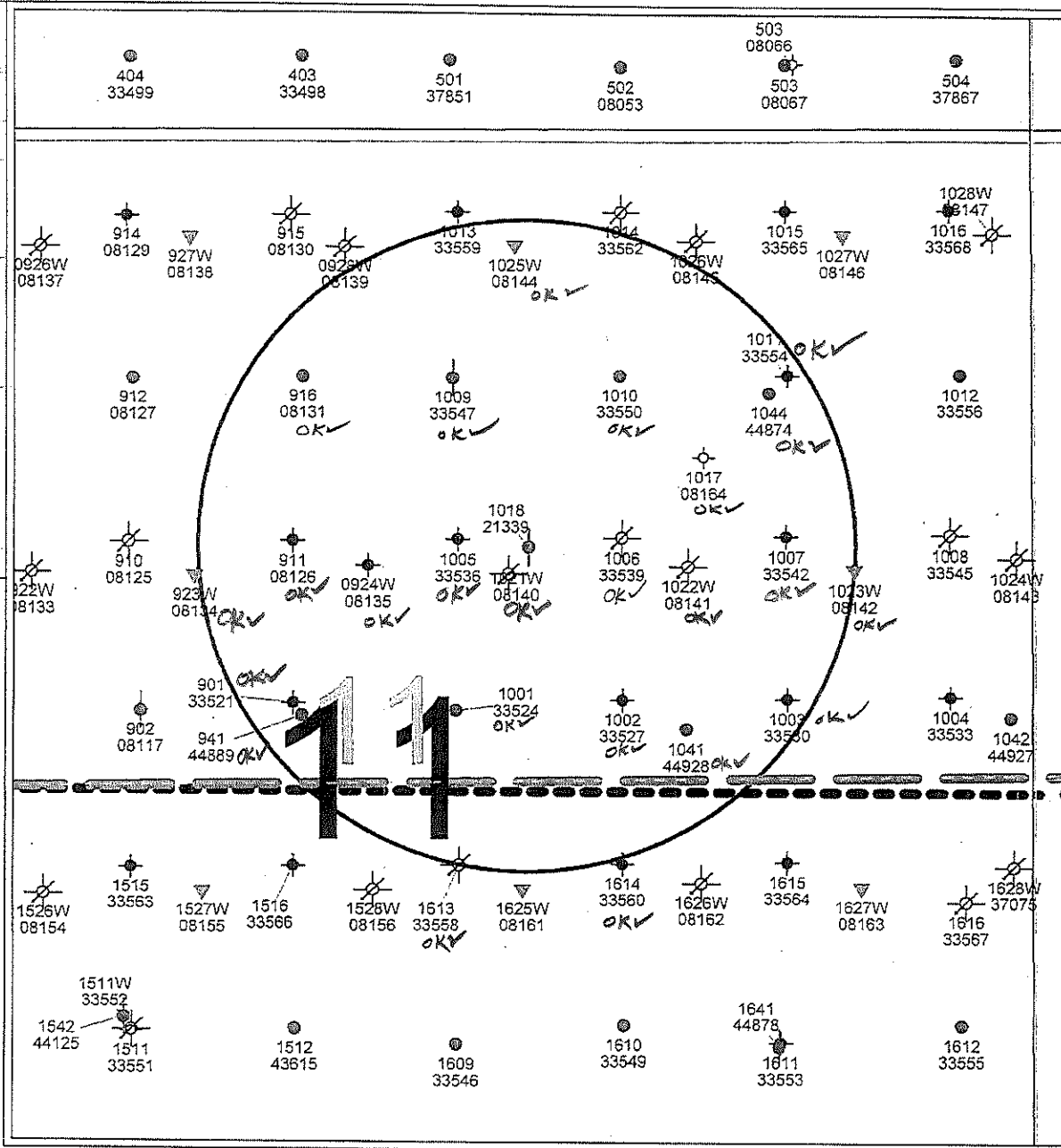


POSTED WELL DATA

Well Label
API Series

- WELL SYMBOLS**
- Plugged & Abandoned Injection
 - SHUT-IN PRODUCER
 - DRY HOLE
 - OIL PRODUCER
 - P&A'd PRODUCER
 - WAG Injector

June 28, 2016



PETRA 6/28/2016 12:58:04 PM

OSAGE TABULATION OF WELLS WITHIN 1/4 MILE OF PROPOSED INJECTION
WELL WHICH PENETRATE THE INJECTION ZONE

Proposed Inj Well NBU #10-18

Well Name 1025W Company Name Phillips Petroleum Date Drilled 3/12/1964 Depth 3054

Location 420' FN L & 550' FW L, NE 1/4, Sec. 11, T 27 N, R 5 E Status Injector

Elevation 1142 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
9-1/2 "	8-5/8 "	113	85sk reg cmt	Surf	
			75 sx Reg w/30% DD & 2% CC (TOC at 1900'). Ran 2 1/16" tbg between 8-5/8" & 4-1/2" & pumped 119 sks reg from 300' to surf	Surf	
6-1/8 "	4-1/2 "	3015		Surf	
Liner "	3-1/2 "	2982	Cmt w/150 sks reg cmt w/2% gel	Surf	
"	"	"		"	
"	"	"		"	
"	"	"		"	

Formations Open To Wellbore: Burbank

Well Name 916 Company Name The Carter Oil Company Date Drilled 10/13/1924 Depth 3030

Location 980' FN L & 300' FE L, NE 1/4, Sec. 11, T 27 N, R 5 E Status Producer

Elevation NA ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
24 "	20 "	19		Surf	
10-5/8 "	8-5/8 "	2346	Shot sqz holes at 500' & 400', cmt 600 sx to surf on ALL casings via D.V. at 503'	Surf	
8-1/2 "	7 "	2874	"	Surf	
7-7/8 "	5-1/2 "	2957	Shot sqz perms 2944' - 2840' & cmt with 270 sx. D.V. at 503'	Surf	

Formations Open To Wellbore: Burbank

Well Name 1009 Company Name Phillips Petroleum Date Drilled 1/16/1925 Depth 3048

Location 979' FN L & 300' FW L, NE 1/4, Sec. 11, T 27 N, R 5 E Status Shut In Producer

Elevation 1173 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
24 "	20 "	20		Surf	
10-5/8 "	8-5/8 "	2333	Shot sqz perms at 500' & 400', pmpd 600 sx thorough 5-1/2" at 498'. Cmt circuallad out ALL cgs strings	498' - Surf	
8-1/2 "	7 "	2817		498' - Surf	
7-7/8 "	5-1/2 "	2968	250 sx, stg 1 cmt at 2200', D.V. at 498'. RIH to 620' with 1" between 5-1/2" & 8-5/8". (Note - Bottom 5 joints are 4-1/2" casing).	100'	

Formations Open To Wellbore: Burbank

OSAGE TABULATION OF WELLS WITHIN 1/4 MILE OF PROPOSED INJECTION WELL
WHICH PENETRATE THE INJECTION ZONE

Proposed Inj Well NBU #10-18

Well Name 1010 Company Name Phillips Petroleum Date Drilled 2/19/1925 Depth 3118 '

Location 981' FN L & 979' FW L, NE 1/4, Sec. 11, T 27 N, R 5 E Status Producer

Elevation 1175 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
24 "	20 "	20 '		Surf	ok ✓
12-1/4 "	8-5/8 "	2340 '	Shoot sqz perms ag 400' & 500', cmt 600 sx via 5-1/2" D.V. at 524'. Cmt circ out all casings	Surf	
8-3/4 "	7 "	2848 '		524' - Surf	
7-7/8 "	5-1/2 "	3010 '	200 sx stg 1.	524' - Surf	
7-7/8 "	4-1/2 "	3118'	225 sx. Top of liner at 2698'	2698	

Formations Open To Wellbore: Burbank

Well Name 1044 Company Name Chaparral Energy Date Drilled 6/30/2013 Depth 3206 '

Location 1175' FN L & 1120' FE L, NE 1/4, Sec. 11, T 27 N, R 5 E Status Producer

Elevation 1125 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
24 "	20 "	90 '	310sk Class A lead	Surf	ok ✓
12-1/4 "	9-5/8 "	623 '	310 sx "A" with 6% OWC, 2% gel, 2% Cal & .4% Pheno	Surf	
8-3/4 "	7 "	3206 '	110sk Class C lead, 115sk Class C tail.	2234	
"	"	"			
"	"	"			

Formations Open To Wellbore: Burbank

Well Name 1011 Company Name Phillips Petroleum Date Drilled 3/16/1925 Depth 3007 '

Location 981' FN L & 979' FE L, NE 1/4, Sec. 11, T 27 N, R 5 E Status P&A 5/19/1995

Elevation 1132 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk "	20 "	12 '	No cmt upon completion		ok ✓
"	10 "	80 '	See P&A details		
"	8-5/8 "	2330 '			
"	7 "	2801 '			
"	"	"			

Formations Open To Wellbore: None

OSAGE TABULATION OF WELLS WITHIN 1/4 MILE OF PROPOSED INJECTION WELL
WHICH PENETRATE THE INJECTION ZONE

Proposed Inj Well NBU #10-18

Well Name 923W Company Name Phillips Petroleum Date Drilled 12/26/1963 Depth 3035

Location 890' FS L & 730' FE L, NW 1/4, Sec. 11, T 27 N, R 5 E Status Injector

Elevation 1116 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
9-1/2 "	8-5/8 "	118 '	85 sx Reg cmt w/2% CC	Surf	
			75 sx Reg w/30% Diacel "D". Stg 1 TOC = 1700'. Ran 1" tbg between 8-5/8" & 4-1/2" & pumped 150 sks reg from 310' to surface	Surf	
6-1/8 "	4-1/2 "	2997 '			
Liner "	3-1/2 "	2934 '	150sx reg cmt 2% gel	2192	
"	"	"			
"	"	"			
"	"	"			

Formations Open To Wellbore: Burbank

Well Name 911 Company Name The Carter Oil Company Date Drilled 10/1/1924 Depth 3047

Location 980' FS L & 300' FE L, NW 1/4, Sec. 11, T 27 N, R 5 E Status P&A 2/4/1966

Elevation NA ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk "	8-5/8 "	2323 '	No cmt upon completion		Hallib cmted formation w/60 sx cmt & 30% DD. Max predd 850#. Ripped 7" csg @ 2680' & pld 122jts. Ripped 8-5/8" off @ 150' & pld 4 jts. Bridged hole @ 2550' & dmpd 10sx cmt. Bridged @ 150' & dmpd 45 sx cmt. Bridged @ 35' & dmpd 45sx cmt. Capped 10sx cmt
Unk "	7 "	2870 '	See P&A work details		
"	"	"			
"	"	"			
"	"	"			

Formations Open To Wellbore: None

Well Name 924 Company Name Phillips Petroleum Date Drilled 12/20/1963 Depth 3068

Location 890' FS L & 90' FE L, NW 1/4, Sec. 11, T 27 N, R 5 E Status P&A 6/14/1996

Elevation 1141 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk "	8-5/8 "	117 '	85sx reg cmt	Surf	POOH w/3-1/2" tbg, RIH w/2" tbg to 3020'. Spot btm plug of 25sx 50-50pz cmt from 3020. Tag plug @ 2800'. Shot off 4-1/2" csg @ 501' POOH w/same. Circ top plug from 400' to surf w/190sk 50-50pz cmt. Cut surf csg below GL restore.
Unk "	4-1/2 "	3025 '	75sx reg cmt w/30% DD	Unk	
"	"	"			
"	"	"			
"	"	"			

Formations Open To Wellbore: None

OSAGE TABULATION OF WELLS WITHIN 1/4 MILE OF PROPOSED INJECTION WELL
WHICH PENETRATE THE INJECTION ZONE

Proposed Inj Well NBU #10-18

Well Name 1005 Company Name Phillips Petroleum Date Drilled 1/19/1925 Depth 3060

Location 979' FS L & 300' FW L, NE 1/4, Sec. 11, T 27 N, R 5 E Status P&A 7/9/1964

Elevation 1175 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk	20		No cmt upon completion		Spotted 40sx reg cmt 30% DD, spotted 50sx reg 30% DD TOC 2898'. Ripped and rec approx 2380' of 7", dmpd 10sx reg @ 2460'. Ripped and rec approx 133' of 8-5/8" capped surface with 5 sx
Unk	8-5/8		See P&A work details		
Unk	7				
"	"				
"	"				

Formations Open To Wellbore: None

Well Name 1021W Company Name Phillips Petroleum Date Drilled 12/16/1963 Depth 3079

Location 890' FS L & 550' FW L, NE 1/4, Sec. 11, T 27 N, R 5 E Status Shut In

Elevation 1161 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
9-1/2	8-5/8	116	Cmt w/85 sx reg cmt w/2% CC	Surf	Scheduled to P&A BIA P&A permit # 16G06427133 EPA P&A approval granted on July 11, 2016
6-1/8	4-1/2	3028	Cmt w/75 sx reg cmt w/30% Diacel & 2% CC. Ran 320' of 1" between 4-1/2" & 8-5/8" & pumped 150 sks reg cmt	1800/Surf	
6-1/8	3-1/2	3005	Cmt w/150 sks reg cmt w/2% gel	310	
"	"	"			

Formations Open To Wellbore: None

Well Name 1006 Company Name Phillips Petroleum Date Drilled 2/19/1925 Depth 3104

Location 981' FS L & 977' FW L, NE 1/4, Sec. 11, T 27 N, R 5 E Status P&A 7/9/1964

Elevation 1199 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk	20	16	No cmt upon completion		Spotted 40sx reg cmt 30% DD TOC 3040'. Spt 40sx reg cmt 30% DD TOC 3018', spol 20sx reg cmt 30% DD TOC 2707'. Ripped and rec 2617' of 7" csg, dmpd 10sx @ 2570', shol and rec 1028' of 8-5/8" dmpd 15sx cmt 30% DD @ 120' cap surf w/5sx reg cmt.
Unk	8-5/8	2359	See P&A work details		
Unk	7	2839			
"	"	"			

Formations Open To Wellbore: None

OSAGE TABULATION OF WELLS WITHIN 1/4 MILE OF PROPOSED INJECTION WELL
WHICH PENETRATE THE INJECTION ZONE

Proposed Inj Well NBU #10-18

Well Name 1017 Company Name Phillips Petroleum Date Drilled 10/22/1928 Depth 3040

Location 1285' FN L & 1265' FE L, NE 1/4, Sec. 11, T 27 N, R 5 E Status P&A 6/9/1964

Elevation NA ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk "	7 "	2983 '	No cmt upon completion		Spotted 30sx reg cmt 30% Diacel D, TOC 2435'. Ripped and rec 2425' of 7", dmpd 10sx cmt @ 2400'. Ripped & rec. 1339' of 8-5/8" spotted 15sx cmt 30% DD @ 150', capped surface w/5sx cmt. OK ✓
Unk "	8-5/8 "	2366 '	See P&A work details		
"	"	"	"	"	
"	"	"	"	"	
"	"	"	"	"	

Formations Open To Wellbore: None

Well Name 1022 Company Name Phillips Petroleum Date Drilled 12/12/1963 Depth 3073

Location 890' FS L & 1230' FW L, NE 1/4, Sec. 11, T 27 N, R 5 E Status P&A 8/9/1996

Elevation 1168 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk "	8-5/8 "	109 '	85sx reg cmt	Surf	RIH w/2" tbg to 3020', spot 30sx 50-50 poz cmt bottom plug @ 3020. POOH, attempt tp tag plug, no cmt. RIH w/tbg to 3020' spot 30sx 50-50 again. Shot off 4-1/2" csg @ 426'. POOH w/csg. Hole collapsed. Drilled from 120'-400', circ 300sx 50-50 poz top plug from 400'-Surf. POOhw/tbg. Cut off 8-5/8" csg 3' below and restore. OK ✓
Unk "	4-1/2 "	3008 '	75sx 30% DD	Unk	
"	"	"	"	"	
"	"	"	"	"	
"	"	"	"	"	

Formations Open To Wellbore: None

Well Name 1007 Company Name Phillip Petroleum Date Drilled 2/16/1925 Depth 3036

Location 981' FS L & 977' FE L, NE 1/4, Sec. 11, T 27 N, R 5 E Status P&A 6/15/1964

Elevation 1136 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk "	7 "	2880 '	No cmt upon completion		Spotted 40sx reg cmt 30% DD TOC 3000', spotted 40sx reg cmt 30% DD TOC 2980', spotted 20sx reg cmt 30% DD TOC 2650'. Ripped & rec 2620' of 7" csg, dmpd 10sx cmt @ 2570', ripped & rec 651' of 8-5/8" csg. Spotted 15sx reg cmt 30% DD @ 115', capped surf w/5sx OK ✓
Unk "	8-5/8 "	2331 '	See P&A work details		
"	"	"	"	"	
"	"	"	"	"	
"	"	"	"	"	

Formations Open To Wellbore: None

OSAGE TABULATION OF WELLS WITHIN 1/4 MILE OF PROPOSED INJECTION WELL
WHICH PENETRATE THE INJECTION ZONE

Proposed Inj Well NBU #10-18

Well Name 1023W Company Name Phillips Petroleum Date Drilled 12/9/1963 Depth 3030 '

Location 890' FS L & 730' FE L, NE 1/4, Sec. 11, T 27 N, R 5 E Status Injector

Elevation 1132 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
9-1/2 "	8-5/8 "	115 '	85sk reg cmt, 90sx dn 1" @ 315'	Surf	
6-1/8 "	4-1/2 "	2990	75 sx Reg w/30% Diacel "D". Stg 1 TOC is unkwn. Ran 1" tbg between 8-5/8" & 4-1/2" & pumped 104 sks reg from 315' to surf	Surf	
Liner "	3-1/2 "	2972	150sk cmt 2% gel, stg 1 TOC = 2190'	Surf	
"	"	"	"	"	
"	"	"	"	"	

Formations Open To Wellbore: Burbank

Well Name 901 Company Name The Carter Oil Company Date Drilled 7/14/1924 Depth 3051 '

Location 300' FS L & 300' FE L, NW 1/4, Sec. 11, T 27 N, R 5 E Status P&A 3/5/1991

Elevation NA ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk "	20 "	20 '	No cmt upon completion		Can find only partial plugging record, cement tickets indicate a plug 50 sx cmt plug was set @ 3005'. Then cmt was dumped on CIBP @ 1820'. 7" parted & removed @ 1820'. 8-5/8 shotoff @ 1820 but not pulled. Hole mudded to surface. Cmt from 200' to surf.
Unk "	8-5/8 "	2378	See P&A work details		
Unk "	7 "	2806			
Unk "	5 1/2 "	Liner	2800' -3031'		
"	"	"	"	"	

Formations Open To Wellbore: None

Well Name 941 Company Name Chaparral Energy Date Drilled 6/11/2013 Depth 3217 '

Location 2405' FN L & 2255' FW L, NW 1/4, Sec. 11, T 27 N, R 5 E Status Producer

Elevation 1146 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
24 "	20 "	90 '		Surf	
12-1/4 "	9-5/8 "	614	310sx Class A 2% gel	Surf	
8-3/4 "	7 "	3217	110sx Class C Lead, 155sk Class C 2% salt .5 pheno tail	1314'	
"	"	"	"	"	

Formations Open To Wellbore: Burbank

OSAGE TABULATION OF WELLS WITHIN 1/4 MILE OF PROPOSED INJECTION WELL
WHICH PENETRATE THE INJECTION ZONE

Proposed Inj Well NBU #10-18

Well Name 1001 Company Name Phillips Petroleum Date Drilled 1/16/1925 Depth 3071

Location 300' FS L & 300' FW L, NE 1/4, Sec. 11, T 27 N, R 5 E Status Producer

Elevation 1175 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
24 "	20 "	20	Shoot sqz holes at 500' & 400' & Cmt with 600 sx via D.V. at 503'. Cir cmt out all csg strings	Surf	Note: Original 5-1/2" liner set 2797' - 3016'. RIH with additional 5-1/2" liner and set in tandem. Shoe at 2793'. Perf and cemented original liner with 50 sx. Set tandem liner with 200 sx.
10-5/8 "	8-5/8 "	2327	No cmt at completion: Cmt 500' - surf	500' - Surf	
8-3/4 "	7 "	2814	No cmt at completion: Cmt 500' - surf	500' - Surf	
7-7/8 "	5-1/2 "	3016	Shot sq holes 3,000' - 2780' cmt'd with 250 sx reg. 200 sx reg w/2% gel - Stg 1 TOC is unkwn. Port collar @ 503'. Cmt to surface w/600 sx reg cmt	503' - Surf	
"	"	"	"	"	

Formations Open To Wellbore: Burbank

Well Name 1002 Company Name Phillips Petroleum Date Drilled 2/21/1925 Depth 3069

Location 300' FS L & 977' FW L, NE 1/4, Sec. 11, T 27 N, R 5 E Status P&A 6/18/1996

Elevation 1150 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk "	8-5/8 "	2392	No cmt upon completion		RIH w/2" tbg to 3000'. Spot 100sk bttm plug 50-50 poz cmt. Did not tag plug. Spot another 100sk 50-50 poz cmt @ 3000'. Tag plug @ 2900'. Shot off 7" csg @ 418' and POOH w/same. Attempt to shoot off 8-5/8" csg @ 396', 367', 333'. Could not pull. RU logger and run CBL and found 8-5/8" cmt'd from 310' - 40'. RIH w/2" tbg to 400' and circ top plug of 350sk 50-50 poz cmt from 400'-surf. Cap & restore.
Unk "	7 "	2895	See P&A work details.		
Unk "	5-1/2 "	132	60sx reg cmt when converted to water input		
"	"	"	"		
"	"	"	"		

Formations Open To Wellbore: None

Well Name 1041 Company Name Chaparral Energy Date Drilled 6/3/2013 Depth 3176

Location 2372' FN L & 1411' FE L, NE 1/4, Sec. 11, T 27 N, R 5 E Status Producer

Elevation 1159 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
24 "	20 "	90		Surf	
12-1/4 "	9-5/8 "	625	310sx Class A Lead, 2% gel, 2% cal, .4 Pheno	Surf	
8-3/4 "	7 "	3176	Perf 2986' - 3046' pmp 110sx Class A Lead, 150sx Tail	Unkwn	
"	"	"	"	"	

Formations Open To Wellbore: Burbank

OSAGE TABULATION OF WELLS WITHIN 1/4 MILE OF PROPOSED INJECTION WELL
WHICH PENETRATE THE INJECTION ZONE

Proposed Inj Well NBU #10-18

Well Name 1003 Company Name Phillips Petroleum Date Drilled 2/9/1925 Depth 3036 '

Location 300' F S L & 977' F E L, NE 1/4, Sec. 11, T 27 N, R 5 E Status P&A 10/11/2011

Elevation 1141 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk "	20 "	20 '	Ran 95' of 1" between 8-5/8" & 20" 70sx reg & 30sx calseal to shut off water to surface 10/15/1970		MIRU. TIH w/bit to 1650'. RU Power Swivel. Drilled to 1927', started acting like iron in hole. Found in old records that 34-1/2 jts of 3-1/2" were in hole since 1977. POOH w/BHA. Was not able to get over fish. TIH w/overshot & got over to top of fish @ 1983'. POOH w/51' of tubing & several small pieces. POOH w/BHA. RU Elite WL. Set 7" cement retainer @ 2038'. RD Elite. RU GC Cementers. Pumped 250 sks reg cmt under cement retainer. Stung out of retainer & spotted 50 sks @ 1500'. POOH w/tbg. RD GC. RU Elite WL. Shot 2 holes @ 550' & every 50' back to surface. RD Elite. RU Consolidated Services. TIH w/tbg to 1200' & spotted 50 sks reg cmt. Pulled tbg up to 600' & pumped 550 sks reg cmt & bring cement to surface in 7" + 8-5/8" + 20" annulus. POOH w/tbg. RD Consolidated. TIH w/tbg & tagged cmt @ 18'. Cut csg off 4' below GL. Pumped 30 sks reg cmt & top well off. Restored location.
Unk "	8-5/8 "	2291 '	See P&A work details.		
Unk "	7 "	2836 '			
"	"	"			
"	"	"			

Formations Open To Wellbore: None

Well Name 1613 Company Name Phillips Petroleum Date Drilled 7/14/1924 Depth 3052 '

Location 300' F N L & 300' F W L, SE 1/4, Sec. 11, T 27 N, R 5 E Status P&A 6/18/1963

Elevation 1153 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk "	20 "	28 '	No cmt upon completion		CO to 3040'. Spotted 115sx reg cmt 30% DD @ 3009' - TOC 2460'. Ripped 7" csg & parted @ 975' - pld 975'. Ripped 8-5/8" csg @ 945 - 765' & pld 35 jts. Mudded hole to surf.
Unk "	8-5/8 "	2362 '	See P&A work details		
Unk "	7 "	2811 '			
"	"	"			

Formations Open To Wellbore: None

Well Name 1614 Company Name Phillips Petroleum Date Drilled 8/22/1924 Depth 3051 '

Location 300' F N L & 978' F W L, SE 1/4, Sec. 11, T 27 N, R 5 E Status P&A 12/17/1965

Elevation 1138 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk "	20 "	13 '	No cmt upon completion		Hallib cmtd form w/60sx reg cmt 30% DD. Max press 700#. Ripped 7" csg @ 2700' & pld 123 jts. Bridged hole @ 2600' & dmpd 10sx cmt. Ripped 8-5/8" csg @ 1010' & pld 25jts. Bridged hole @ 140' & dmpd 45sx cmt. Bridged @ 25' & dmpd 10sx cmt. Capped w/5 sx cmt
Unk "	10 "	427 '	See P&A work details		
Unk "	8-5/8 "	2340 '			
Unk "	7 "	2851 '			

Formations Open To Wellbore: None

APPLICANT'S PUBLIC NOTICE OF PERMIT AND VERIFICATION
(\$147.2918 (b) (s) and \$147.2929 (d) (ii))

Chaparral Energy, LLC is applying for a permit for a Class II
(Operator Name)
injection well. Well No. 10-W18 is located 990 ft. from [~~N~~ S] line and
625 ft. from [~~E~~ W] line. NE/4 Sec. 11 27N 5E
(1/4 Sec. & Sec. No.) (Twp.) (Rge.)
The well will be used to inject Produced Salt Water into the Burbank
(Fluid Type) and CO2 (Formation Name)
for (~~disposal~~/enhanced recovery). The well operator's address is
701 Cedar Lake Blvd. Oklahoma City, Ok 73114
(Street/P.O. Box/City/State/Zip Code)

EPA may prepare a draft permit or a notice of intent to deny this application. Following the preparation of a draft permit or intent to deny, there will be an opportunity for public comments. For further information concerning the status of this application, please contact:

Osage UIC Office
P. O. Box 1495
Pawhuska, Oklahoma 74056
Phone: (918) 287-5333

Notice Sent To: (Surface Owner/~~Tenant/Operator~~) Circle one

Chaparral Real Estate, LLC
Name
701 Cedar Lake Blvd.
Address
Oklahoma City, OK 73114
City / State / Zip Code

I certify that the surface owner(s), the tenants on land where the injection well is located, and each operator of a producing lease within one-half mile of the well location was mailed a copy of this notice as required by 40 CFR \$147.2918.

Rosalind Karlin
(Owner/Operator Signature)

7/21/2016
(Date of Notice)

APPLICANT'S PUBLIC NOTICE OF PERMIT AND VERIFICATION
(\$147.2918 (b) (s) and \$147.2929 (d) (ii))

Chaparral Energy, LLC is applying for a permit for a Class II
(Operator Name)
injection well. Well No. 10-W18 is located 990 ft. from [N S] line and
625 ft. from [E W] line. NE/4 Sec. 11 27N 5E
(1/4 Sec. & Sec. No.) (Twp.) (Rge.)
The well will be used to inject Produced Salt Water into the Burbank
(Fluid Type) and CO2 (Formation Name)
for ~~(XXXXXX)~~ enhanced recovery). The well operator's address is
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(Street/P.O. Box/City/State/Zip Code)

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Osage UIC Office
P. O. Box 1495
Pawhuska, Oklahoma 74056
Phone: (918) 287-5333

Notice Sent To: (~~Surface Owner~~/~~Tenant~~/Operator) Circle one

Chaparral Energy, LLC
Name
701 Cedar Lake Blvd.
Address
Oklahoma City, OK 73114
City / State / Zip Code

I certify that the surface owner(s), the tenants on land where the injection well is located, and each operator of a producing lease within one-half mile of the well location was mailed a copy of this notice as required by 40 CFR \$147.2918.

Rosalind Karlin
(Owner/Operator Signature)

7/21/2016
(Date of Notice)

Form 6-168
Oct. 1953

B001236

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS
NATIONWIDE OIL AND GAS LEASE BOND

KNOW ALL MEN BY THESE PRESENTS, That we, CEI Bristol Acquisition, L.P., Chaparral Energy, L.L.C.,
Chaparral Oil, L.L.C.

of 701 Cedar Lake Blvd., Oklahoma, OK 73114

as principals, and U.S. Specialty Insurance Company

of 13403 Northwest Freeway, Houston, TX 77040 as surety, are held and firmly bound unto the United States of America the sum of one hundred fifty thousand (\$150,000) dollars, lawful money of the United States for the payment of which, well and truly to be made, we bind ourselves and each of us, our and each of our heirs, successors, executors, administrators, and assigns, jointly and severally, firmly by these presents.

Sealed with our seals and dated the 31st day of October, 2004

The condition of this obligation is such that whereas the said principals have heretofore or may hereafter enter into or otherwise acquire an interest in oil and gas mining leases and oil and gas prospecting permits of various dates and periods of duration covering lands or interests in lands held by the United States in trust for individual Indians, or tribes or bands of Indians, or subject to restrictions against alienation without the consent of the Secretary of the Interior or his authorized representative, which leases and permits have been or may hereafter be granted or approved by the Secretary of the Interior or his authorized representative, and the identification of which herein is expressly waived by both principals and suretyy hereto.

WHEREAS the principals and surety agree that the coverage of this bond shall extend to and include all extensions and renewals of leases and permits covered by this bond, such coverage to continue without any interruption due to the expiration of the term set forth therein.

WHEREAS the surety hereby waives any right to notice of any modification of any such lease or permit, or obligation thereunder whether effected by extension of time for performance, by commitment of such lease to unit, cooperative, or communitization agreement, by waiver, suspension, or change in rental, except an increase thereof, by minimum royalty payment, except an increase thereof, by compensatory royalty payment, or otherwise, this bond to remain in full force and effect notwithstanding.

WHEREAS the principals and suretyy agree that the neglect or forbearance of the obligee of any such lease or permit in enforcing the payment of any rental or royalty or the performance of any other covenant, condition, or agreement of any such lease or permit shall not in any way release the principals and suretyy, or either of them, from any liability under this bond; and

WHEREAS the principals and suretyy agree that in the event of any default under any such lease or permit, the obligee may prosecute any claim, suit, action, or other proceeding against the principals and suretyy, or either of them, without the necessity of joining the other.

Now, if the said principals herein shall faithfully carry out and observe all the obligations assumed in said leases and permits to which CEI Bristol Acquisition, L.P., Chaparral Energy, L.L.C., Chaparral Oil, L.L.C. is now or may hereafter become a party, and shall observe all the laws of the United States and regulations made, or which shall be made, thereunder, for the government of trade and intercourse with Indian tribes, and all rules and regulations that have been or shall hereafter be lawfully prescribed

by the Secretary of the Interior relative to said oil and gas mining leases and permits, and shall in all particulars comply with the provisions of said leases, permits, rules and regulations, then this obligation shall become null and void; otherwise, to remain in full force and effect.

The rate of premium charged on this bond is \$ 25/1000; the total premium paid is \$ **3,750.00**.

Signed and sealed in the presence of-
WITNESSES:

X Thomas C. Lough
Thomas C. Lough
P.O. 701 Cedar Lake Blvd., OKC, OK 73114

X Terrell N. Lay
Terrell N. Lay
P.O. 701 Cedar Lake Blvd., OKC OK 73114

P.O. Molly Battenfield
Molly Battenfield
777 Post Oak Blvd., Suite 330, Houston, TX 77056

P.O. Diane E. Carey
Diane E. Carey
777 Post Oak Blvd., Suite 330, Houston, TX 77056

P.O. _____

P.O. _____

P.O. _____

P.O. _____

* Two witnesses to each signature

CBI Bristol Acquisition, L.P., Chaparral Energy, L.L.C.,
Chaparral Oil, L.L.C.

as to Mark A. Elscher [SEAL]
Mark A. Elscher, Manager

U.S. Specialty Insurance Company
as to W. Russell Brown, Jr. [SEAL]
W. Russell Brown, Jr., Attorney-in-Fact

as to _____ [SEAL]

as to _____ [SEAL]

DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS
DEPUTY BUREAU DIRECTOR-TRUST SERVICES
1849 C STREET, N.W., MS-4639-MIB
WASHINGTON, D. C. 20240

2-16, 2005

Approved:

Ben K. Burghard
DEPUTY BUREAU DIRECTOR-TRUST SERVICES

Bond No. B001236

**Important Notice Regarding
Terrorism Risk Insurance Act of 2002**

In accordance with the Terrorism Risk Insurance Act of 2002 (the "Act"), this disclosure notice is provided for surety bonds on which U.S. Specialty Insurance Company is the issuing surety.

The premium attributable to any bond coverage for "acts of terrorism" as defined in Section 102(1) of the Act is Zero Dollars (\$0.00).

The United States will reimburse the Issuing Sureties for ninety percent (90%) of any covered losses from terrorist acts certified under the Act exceeding the applicable surety deductible.

The actual coverage provided by your bond for acts of terrorism, as is true for all coverages, is limited by the terms, conditions, exclusions, penalties, limits, other provisions of your bond and the underlying contract, any endorsements to the bond and generally applicable rules of law. This Important Notice Regarding Terrorism Insurance Risk Act of 2002 is for informational purposes only and does not create coverage nor become a part or condition of the attached document.

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IndemCo

POWER OF ATTORNEY

PA001236

(To be used with bonds issued on behalf of U. S. SPECIALTY INSURANCE COMPANY)

Know All Men by These Presents That, U. S. SPECIALTY INSURANCE COMPANY (the "Company"), a corporation duly organized and existing under the laws of the State of Texas, and having its principal office in Houston, Harris County, Texas, does by these presents make, constitute and appoint

Erwin H. Frank III, W. Russell Brown, Jr.

its true and lawful Attorney-in-fact, with full power and authority hereby conferred in its name, place and stead, to execute, acknowledge and deliver any and all bonds, recognizances, undertakings or other instruments or contracts of suretyship to include riders, amendments, and consents of surety, providing the bond penalty does not exceed Three Million Dollars (\$3,000,000) and to bind the Company thereby as fully and to the same extent as if such bonds were signed by the President, sealed with the corporate seal of the Company and duly attested by its Secretary, hereby ratifying and confirming that the said Attorney-in-Fact may do in the premises. Said appointment is made under and by authority of the following resolutions of the Board of Directors of the U. S. Specialty Insurance Company:

Be It Resolved, that the President, any Vice-President, any Assistant Vice-President, any Secretary or any Assistant Secretary shall be and is hereby vested with full power and authority to appoint any one or more suitable persons as Attorney(s)-in-Fact to represent and act for and on behalf of the Company subject to the following provisions:

Attorney-in-Fact may be given full power and authority for and in the name of and of behalf of the Company, to execute, acknowledge and deliver, any and all bonds, recognizances, contracts, agreements or indemnity or other conditional or obligatory undertakings and any and all notices and documents canceling or terminating the Company's liability thereunder, and any such instruments so executed by any such Attorney-in-Fact shall be binding upon the Company as if signed by the President and sealed and attested by the Corporate Secretary.

Be It Resolved, that the signature of any authorized officer and seal of the Company heretofore or hereafter affixed to any power of attorney or any certificate relating thereto by facsimile, and any power of attorney or certificate bearing facsimile signature or facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached. (Adopted by unanimous written consent in lieu of meeting on July 7, 2003.)

In Witness Whereof, U. S. SPECIALTY INSURANCE COMPANY has caused these presents to be signed by its President, and its corporate seal to be hereto affixed this 24th of August, 2004.

Corporate Seal

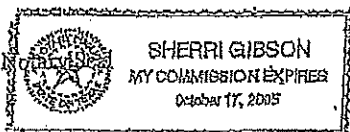
U. S. SPECIALTY INSURANCE COMPANY
By


State of Texas

County of Harris ss:


Michael J. Schell, President

On this 24th of August before me personally came Michael J. Schell, to me known, who, being by me duly sworn, did depose and say, that he resides in Houston, Texas, that he is President of U. S. SPECIALTY INSURANCE COMPANY, the company described in and which executed the above instrument; that he knows the seal of said Company; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said Company; and that he signed his name thereto by like order.

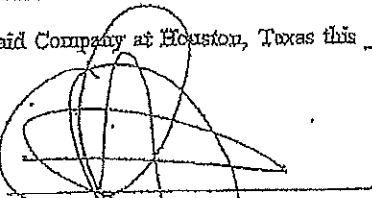


 Notary Public
My commission expires 10-17-05

I, Christopher L. Martin, Secretary of U. S. SPECIALTY INSURANCE COMPANY, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney, executed by said Company, which is still in full force and effect; furthermore, the resolutions of the Board of Directors, set out in the Power of Attorney are in full force and effect.

In Witness Whereof, I have hereunto set my hand and affixed the seal of said Company at Houston, Texas this 31st day of October, 2004.

Corporate Seal


Christopher L. Martin, Secretary

Bond No. B001236

ASSUMPTION OF LIABILITY RIDER

It is hereby agreed by and between the undersigned principal and surety, in consideration for the additional premium or consideration paid for this rider, if any, and the consent by the United States to terminate the period of liability on surety bond number 886682C, carrying the same principal and Developers Surety and Indemnity Company as surety, the undersigned principal and surety hereby assume any and all liabilities that may be outstanding on surety bond number 886682C, including, but not limited to, the obligation to properly plug and abandon all wells existing, to which surety bond number 886682C applies and any unpaid rentals or royalties heretofore accruing; provided, however, that this rider shall not act to increase the potential or cumulative liability of the surety above the face amount of the bond to which this rider attaches.

Executed this 31st day of October, 2004

Witnesses

Name of Witness
Thomas C. Lough
701 Cedar Lake Blvd., OKC, OK
✓ Address of Witness

701 Cedar Lake Blvd., OKC, OK
Principal's Address

Molly Battenfield
Name of Witness Molly Battenfield

777 Post Oak Ste 330, Houston, TX 77056
Address of Witness

CBI Bristol Acquisition, L.P.,
Chaparral Energy, L.L.C.,
Chaparral Oil, L.L.C.
Name of Principal

Signature

73114 Mark A. Fischer, Manager
Name and title of person executing for Principal

U.S. Specialty Insurance Company
Name of Surety

Signature

W. Russell Brown, Jr., Attorney-in-Fact
Name and title of person executing for Surety

13403 Northwest Freeway, Houston, TX 77040
Surety's Address

STATEMENT OF AUTHORIZATION

I, Mark A. Fischer, hereby authorize Kevin Turner to act in my behalf in executing any necessary forms, to include Permit Applications, Compliance Reports, etc., as required by the Environmental Protection Agency Underground Injection Control Program.

Mark A. Fischer

Printed Name

Signature

Manager, Chaparral Energy, LLC

Title

July 16, 2015

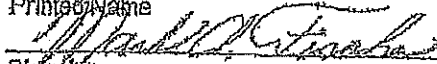
Date

STATEMENT OF AUTHORIZATION

I, Mark A. Fischer, hereby authorize Larry Brinlee to act in my behalf in executing any necessary forms, to include Permit Applications, Compliance Reports, etc., as required by the Environmental Protection Agency Underground Injection Control Program.

Mark A. Fischer

Printed Name


Signature

Manager of Chaparral Energy, L.L.C.

Title

September 04, 2012

Date

CERTIFICATION

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibilities of fine and imprisonment.

Reign Kykendall
Name

Engineering Tech Specialist
Title

**If certification is signed by a party other than the Injection well owner/operator a written statement of authorization signed by the owner/operator must accompany the application.*

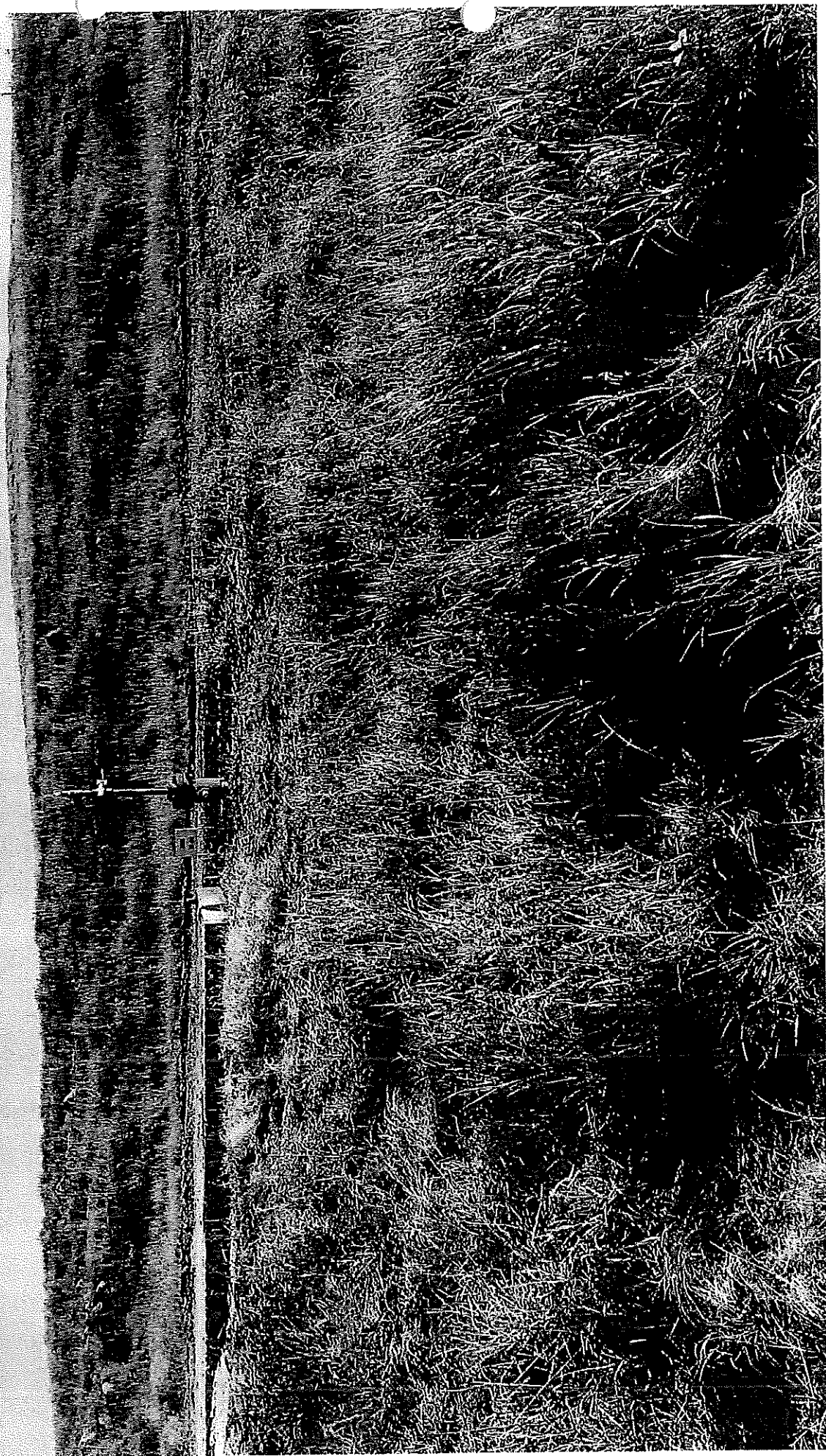
NBA #10. W18
east / road



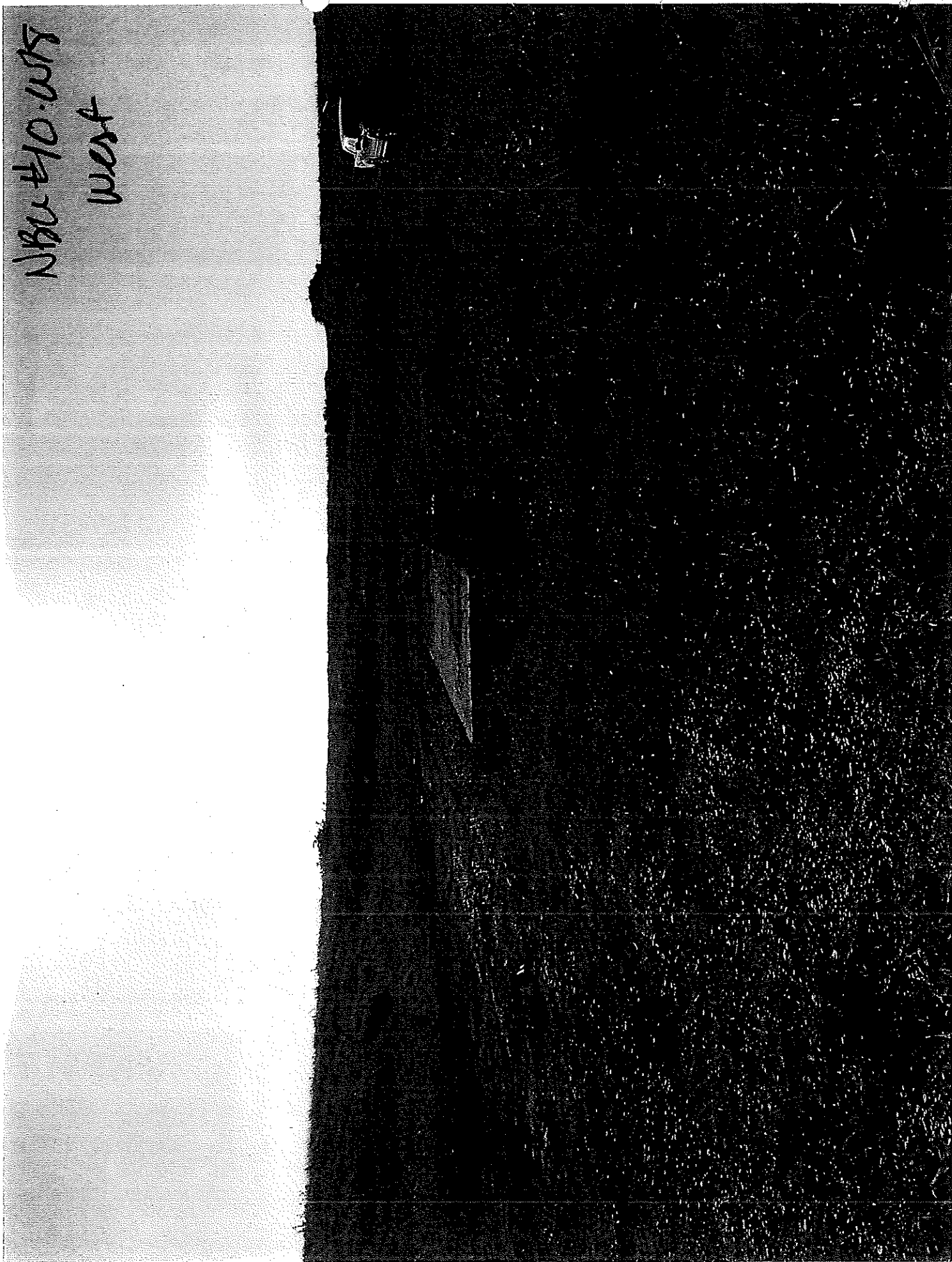
NBA #10. W18
north



NBA 410. W/S
South / sign



NBU 410-018
west



Tingey, Christopher

From: Rosalind Karlin <rosalind.karlin@chaparralenergy.com>
Sent: Tuesday, August 09, 2016 5:03 PM
To: Tingey, Christopher
Cc: Leigh Kuykendall; Greg Shelly
Subject: RE: NBU #10-18W
Attachments: Chaparral-NBU #10-18_Cement Bond.pdf; Chaparral-NBU #10-18_Cement Bond.tif

Chris,

Please see attached.

Thanks,

Rosalind

From: Tingey, Christopher [mailto:tingey.christopher@epa.gov]
Sent: Tuesday, August 09, 2016 4:37 PM
To: Rosalind Karlin
Cc: Leigh Kuykendall; Greg Shelly
Subject: RE: NBU #10-18W

THIS EXTERNAL EMAIL WAS SAFELY RECEIVED THROUGH THE CHAPARRAL MIMECAST SERVICE.

Yes, please. That will satisfy permit condition I.A.4.

Christopher Tingey
Environmental Scientist
U.S. EPA, Region 6 (6WQ-SG)
1445 Ross Avenue
Dallas, TX 75202
214-665-8364

From: Rosalind Karlin [mailto:rosalind.karlin@chaparralenergy.com]
Sent: Tuesday, August 09, 2016 1:09 PM
To: Tingey, Christopher <tingey.christopher@epa.gov>
Cc: Leigh Kuykendall <leighk@chaparralenergy.com>; Greg Shelly <greg.shelly@chaparralenergy.com>
Subject: RE: NBU #10-18W

Yes actually I just talked with Greg about it this morning. He did some more digging and reviewed the well history and found a bond log ran in June 2016. It indicates varying degrees of bonding, but does have some bonding from 7" casing point at 3017' to surface. He believes a good part of this is due to 600sx being pumped in the squeeze holes at 500' and going down. We have revised the TOC behind 7" casing from 2250' to 1630' bottom stage, 733' to surface top stage.

Will you need a copy of the log?

Thanks!

Rosalind Karlin
Regulatory Compliance Specialist - EOR
O: 405.426.6690 / F: 405.425.3790
Rosalind.Karlin@chaparralenergy.com

From: Tingey, Christopher [<mailto:tingey.christopher@epa.gov>]
Sent: Tuesday, August 09, 2016 11:09 AM
To: Rosalind Karlin
Cc: Leigh Kuykendall
Subject: RE: NBU #10-18W

THIS EXTERNAL EMAIL WAS SAFELY RECEIVED THROUGH THE CHAPARRAL MIMECAST SERVICE.

Rosalind,

Any luck on finding a CBL?

Christopher Tingey
Environmental Scientist
U.S. EPA, Region 6 (6WQ-SG)
1445 Ross Avenue
Dallas, TX 75202
214-665-8364

From: Rosalind Karlin [<mailto:rosalind.karlin@chaparralenergy.com>]
Sent: Tuesday, August 02, 2016 4:48 PM
To: Tingey, Christopher <tingey.christopher@epa.gov>
Cc: Leigh Kuykendall <leighk@chaparralenergy.com>
Subject: NBU #10-18W

Chris,

I've attached a revised wellbore schematic for the NBU #10-18. I just flat out missed the details in the original completion report indicating TOC @ 2250 from bottom of casing at 3016'.

Greg is looking to see if we have a full CBL of the wellbore.

Thanks,

Rosalind Karlin

Regulatory Compliance Specialist - EOR

O: 405.426.6690 / F: 405.425.3790

Rosalind.Karlin@chaparralenergy.com

Company **CHAPARRAL ENERGY, LLC.**
 Well **NBU #10-18**
 Field **BURBANK**
 County **OSAGE**
 State **OKLAHOMA**

RECON

CEMENT BOND
 VARIABLE DENSITY
 GAMMA RAY
 COLLAR LOCATOR

SEC 11	TWP 27N	RGE 05E	OTHER SERVICES: DIL CNL LDT SONIC
Location. 990' FSL & 625' FWL		N/A	
SURF. SAME		API# 35-113-21339	
Permanent Datum	Ground Level	Elev 1168.13	ELEVATIONS K.B. 1175.13
Log Measured From	Kelly Bushing		G.L. 1168.13
Drilling Measured From	Kelly Bushing		D.F. N/A

Date	30-JUN-2016		
Run No.	ONE		
PBTD	3110	ft.	ft.
TD RECON	3124	ft.	ft.
Bot Logged Interval	3122	ft.	ft.
Top Logged Interval	50	ft.	ft.
Casing Depth Driller	7	in.	@ 3017 in. @
Casing Depth RECON	7	in.	@ 3017 in. @
Bit Size	6 1/8	in.	in.
Drilling Fluid Type	WATER		
Density	8.3		N/A
Fluid Loss	PH	N/A	N/A
Source Of Sample	Flowline		
RM @ Measured Temp	N/A	Ohmm	@ N/A Ohmm @
RMF @ Measured Temp	N/A	Ohmm	@ N/A Ohmm @
RMC @ Measured Temp	N/A	Ohmm	@ N/A Ohmm @
RM @ MRT	N/A	Ohmm	@ N/A Ohmm @
Max Recorded Temp	N/A	DegF	DegF
Time Drilling Stopped	N/A	N/A	
Time Circulation Stopped	N/A	N/A	
Time Logger On Bottom	30-JUN-2016	17:07	
Unit Num	Location	S408	OKLAHOMA CITY, OK
Recorded By	H. GARCIA		
Witnessed By	MR. J. LILES		

Interpretations made by any of our officers, agents or employees, except in the case of provable Gross Negligence or willfull damage. Interpretations are also subject to the terms and conditions of our Price Schedule and General Service Agreement.

All Interpretations are based on Inferences from electrical or other readings, and therefore, RECON cannot and will not guarantee the accuracy of any Interpretations of log data. RECON shall not be liable for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from

RIG INFORMATION

GLOBE ENERGY SERVICES

Drill Contr/Rig#

GENERAL REMARKS SECTION

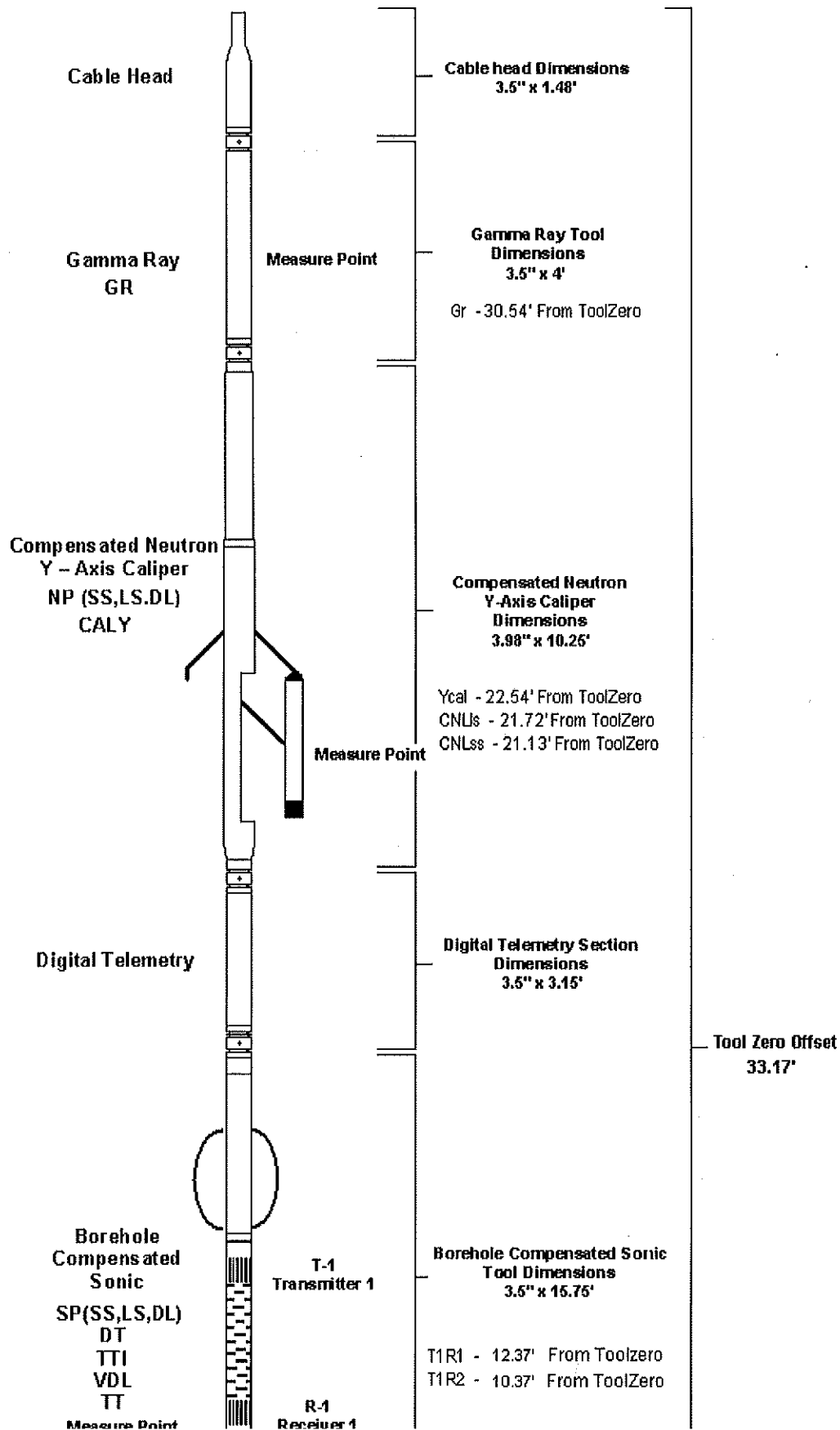
TIED INTO ??

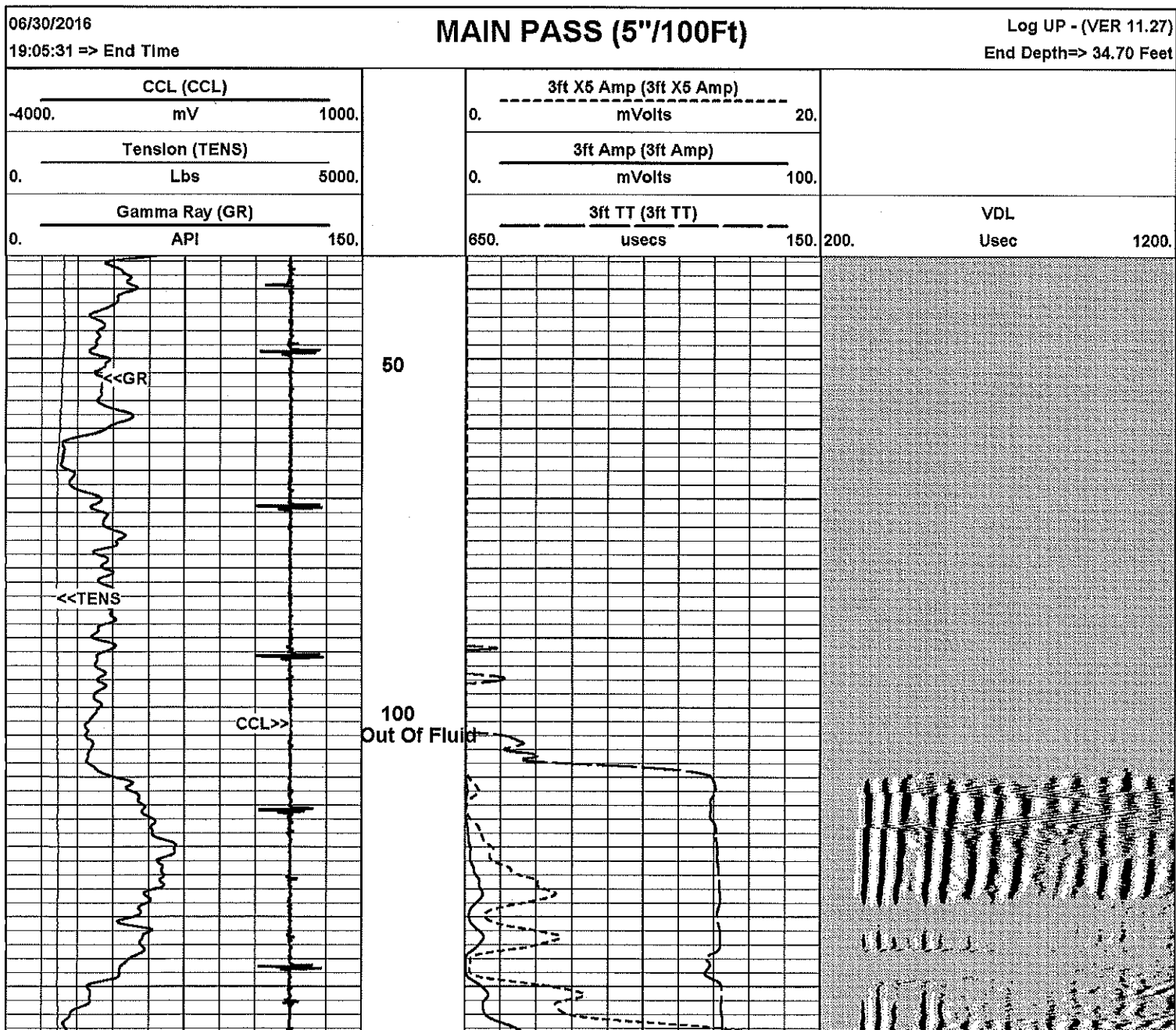
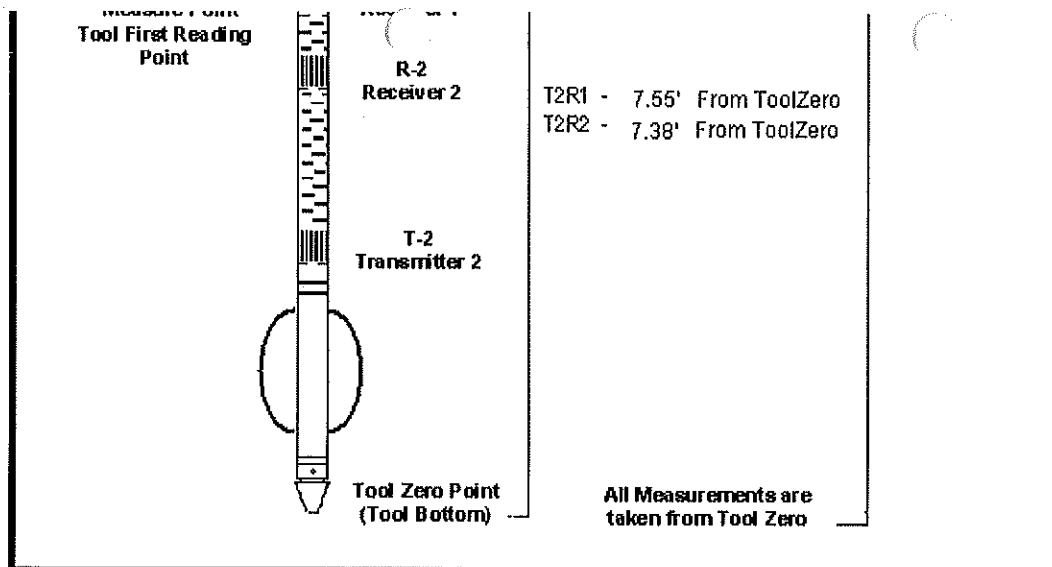
CNL / LDT LOG DATED 30-JUN-2016.

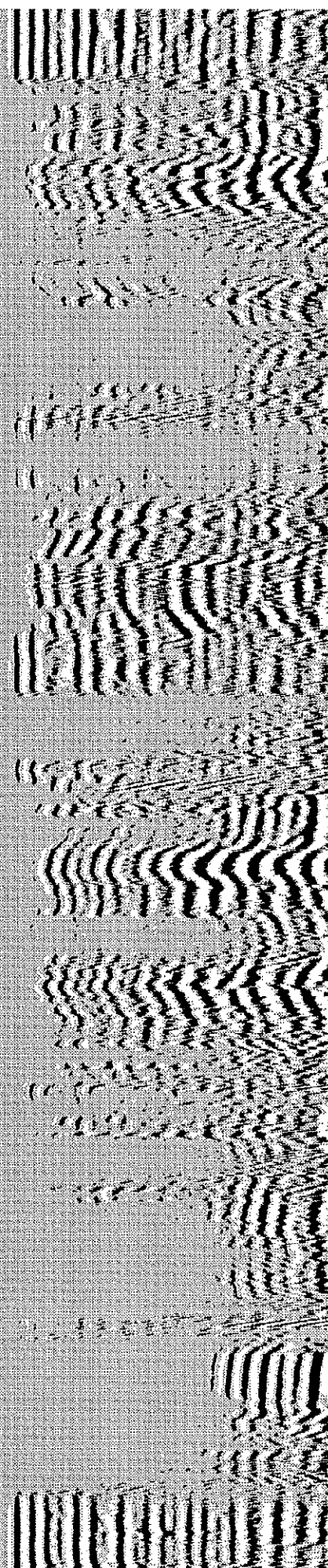
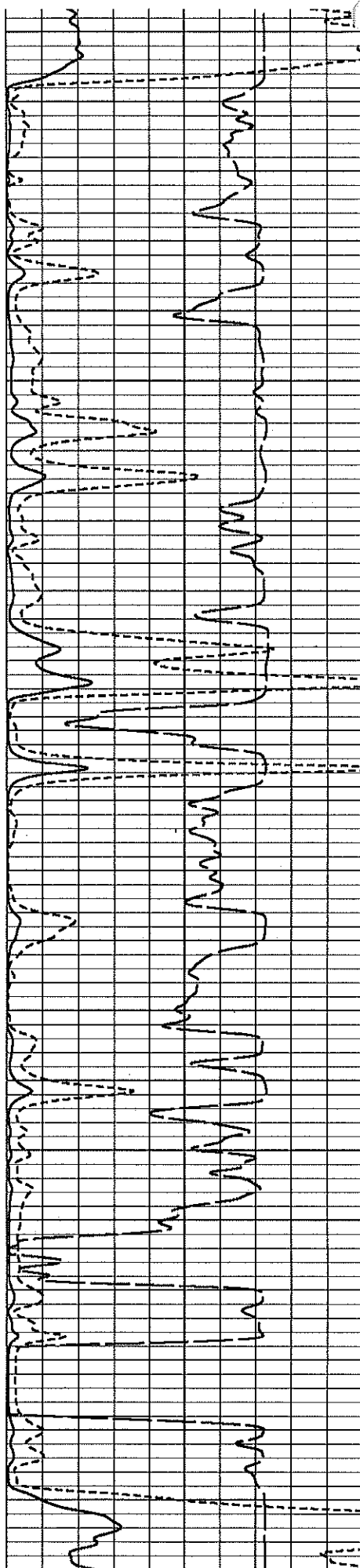
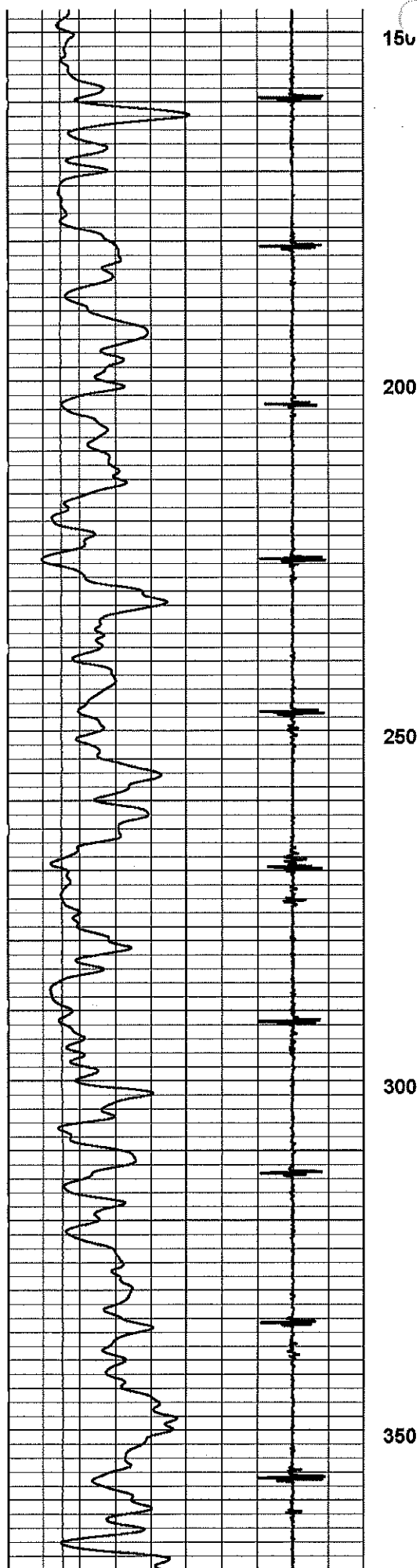
THANK YOU FOR USING RECON PETROTECHNOLOGIES INC.

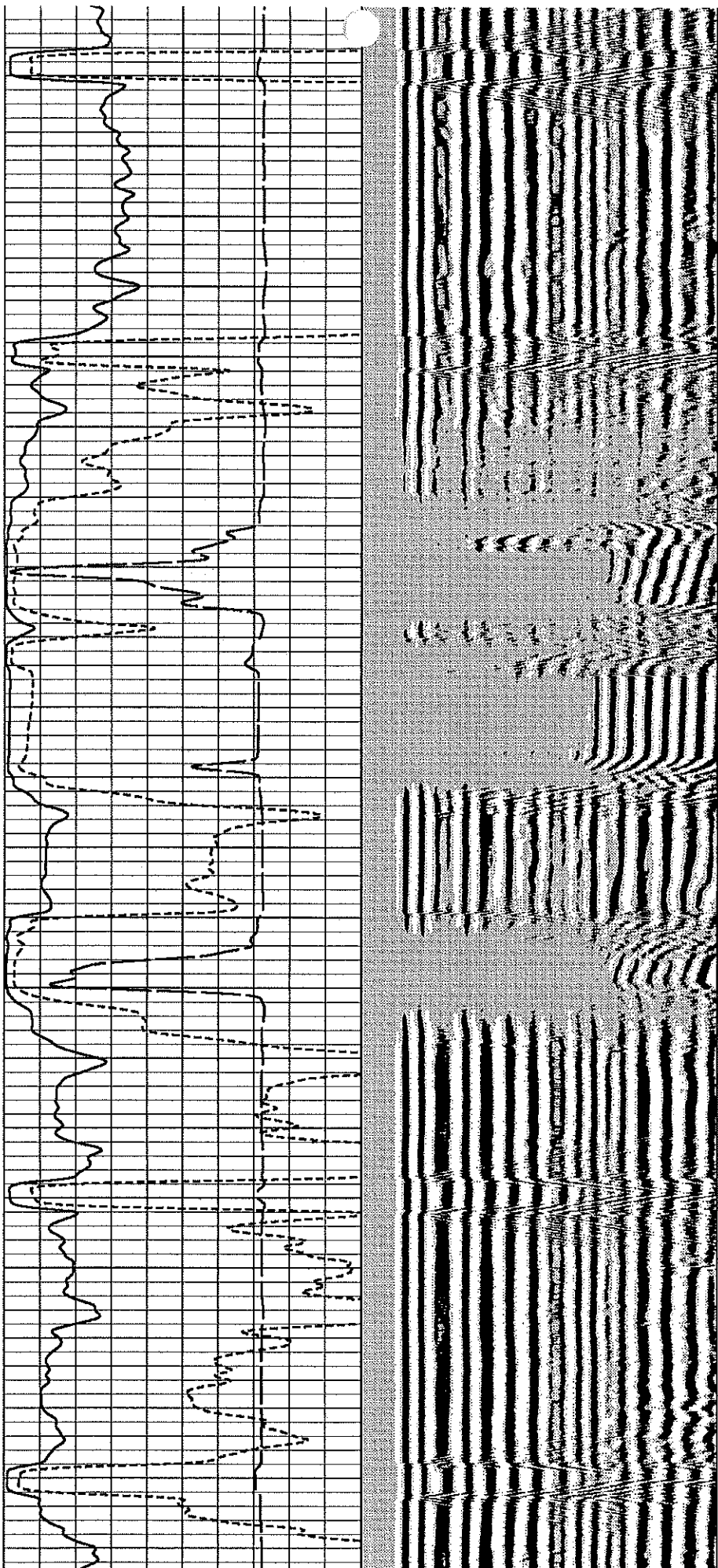
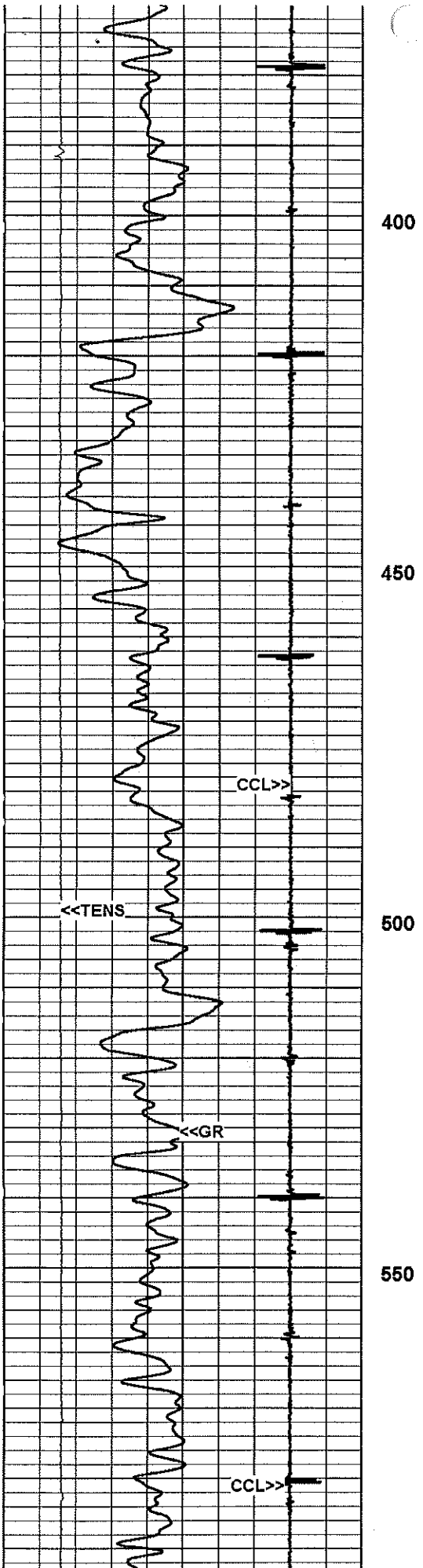
CREW: J. THOMAS

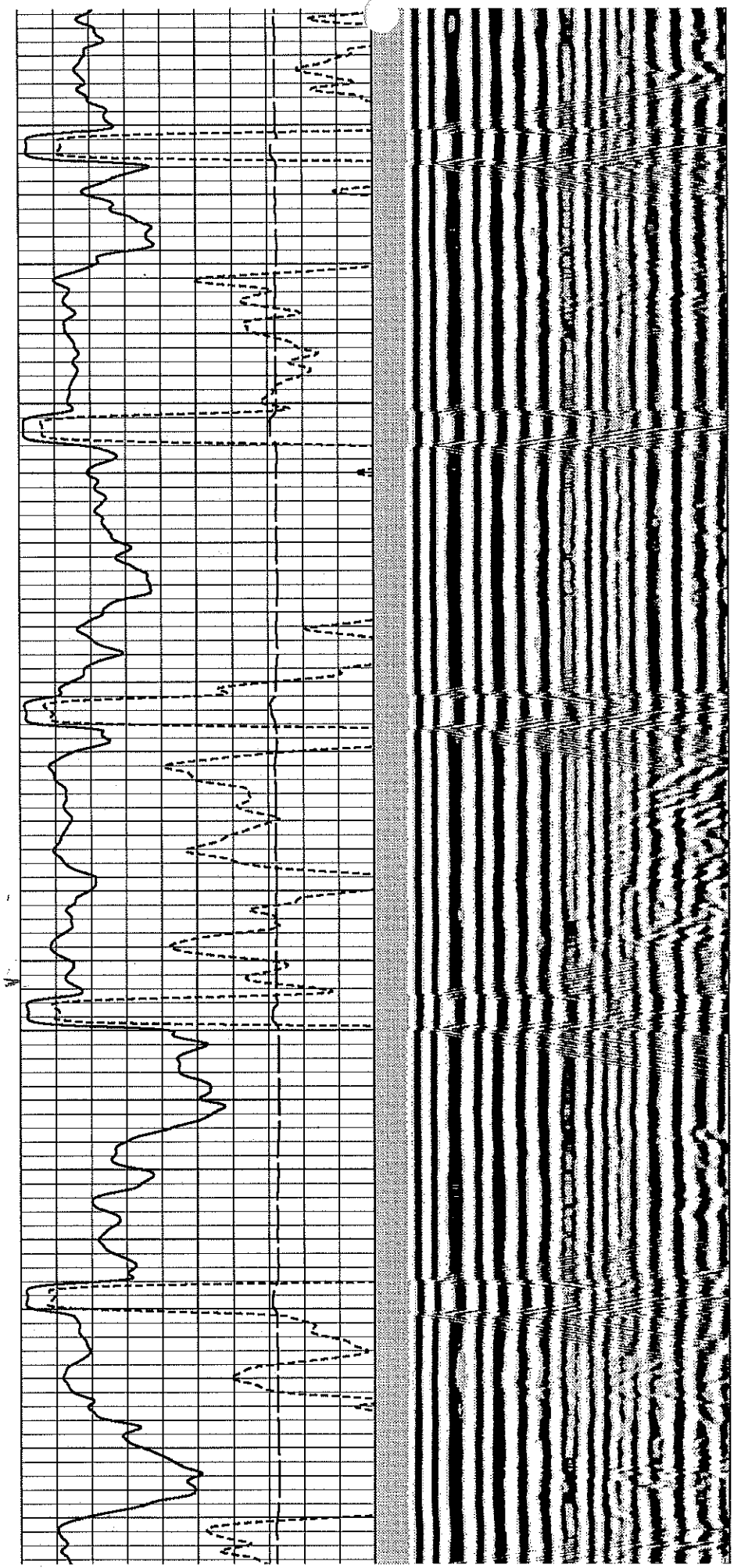
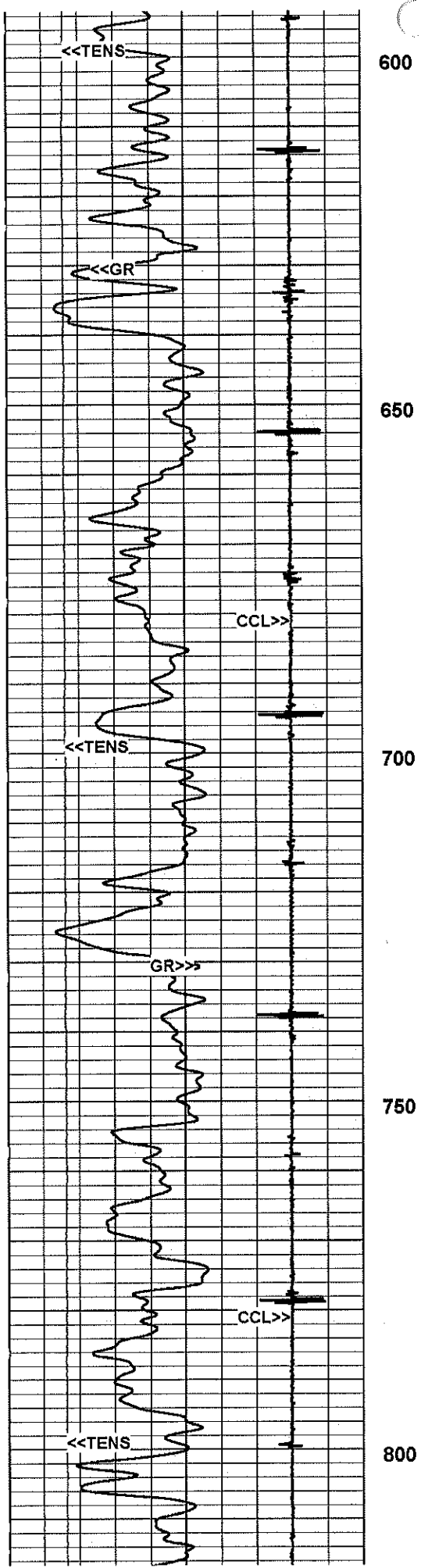
BHC SONIC / GAMMA RAY / COMPENSATED NEUTRON / Y-CALIPER

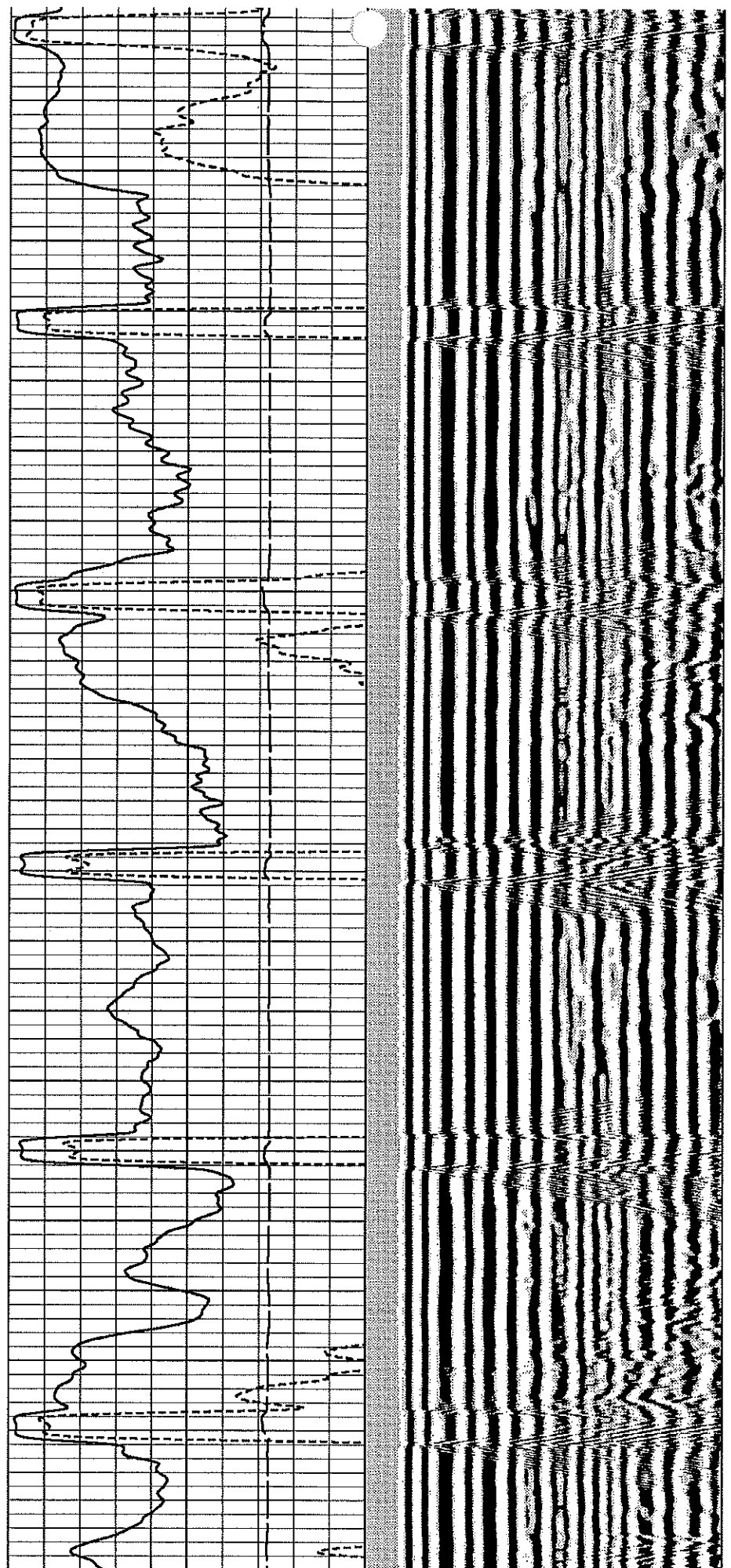
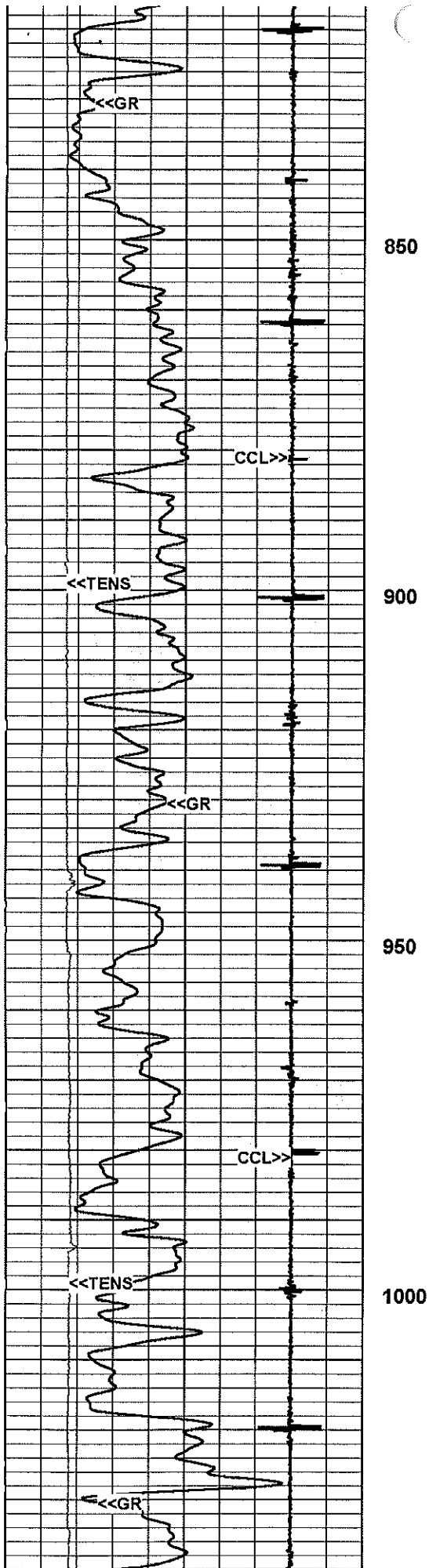


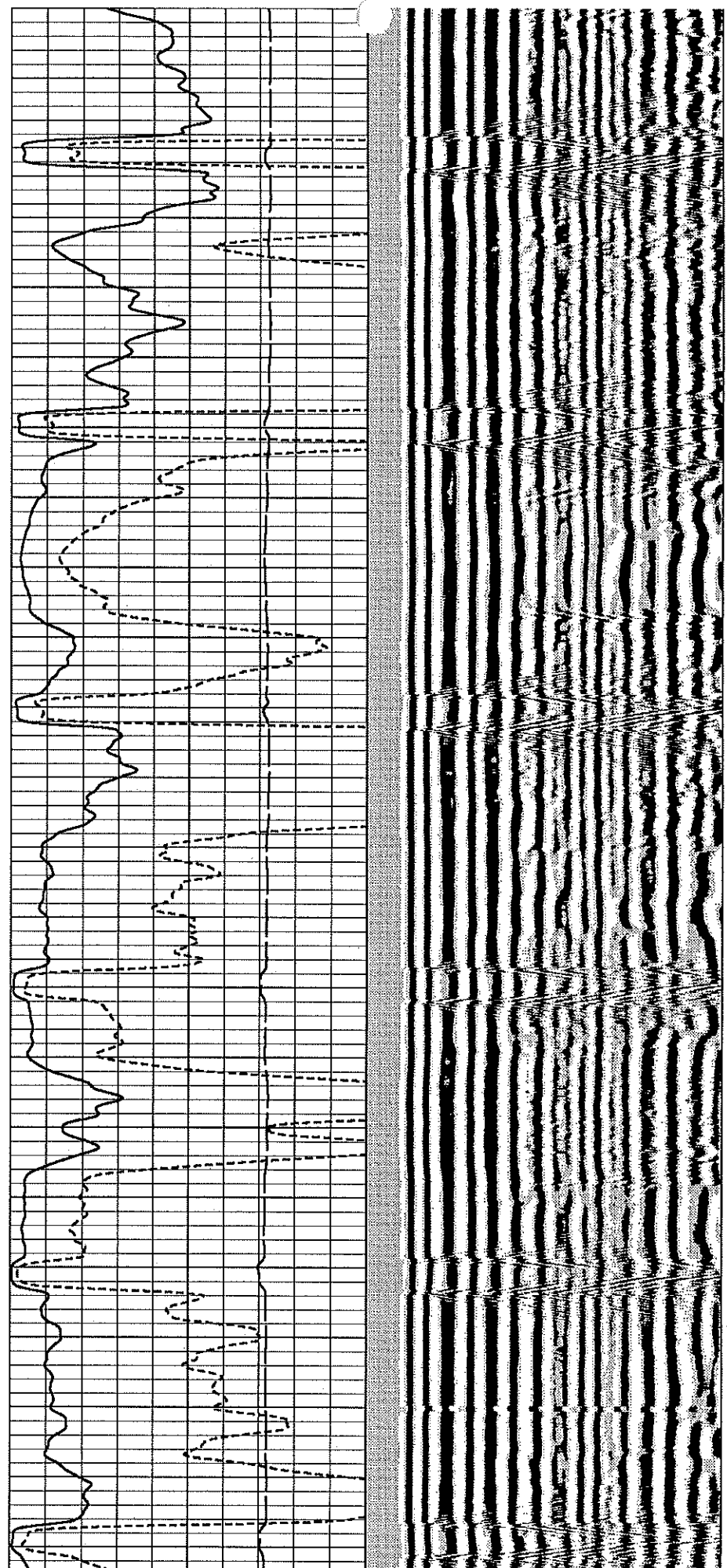
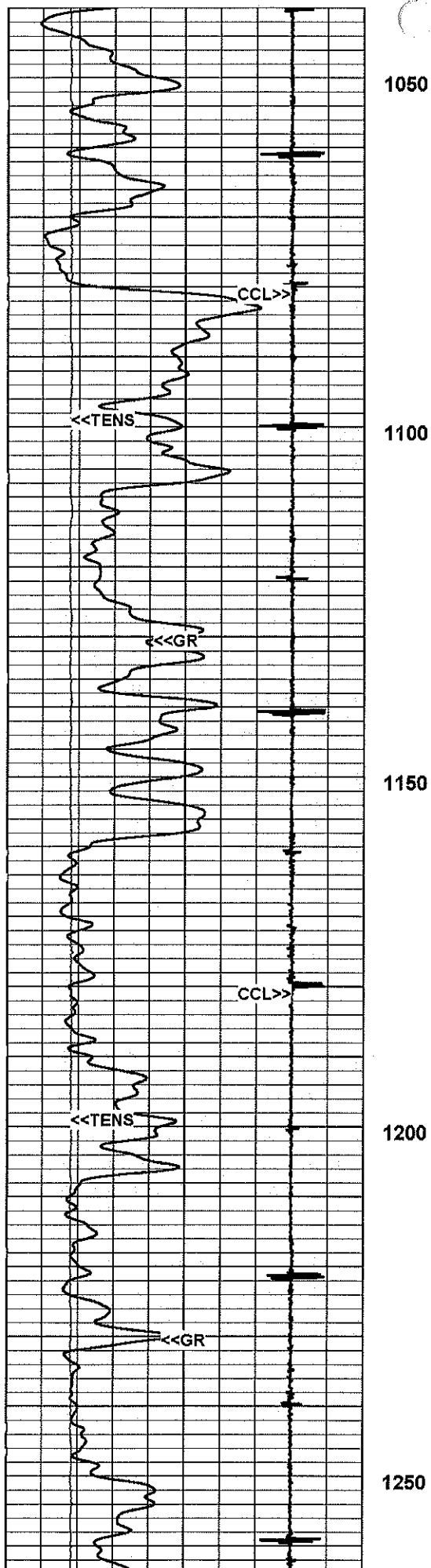


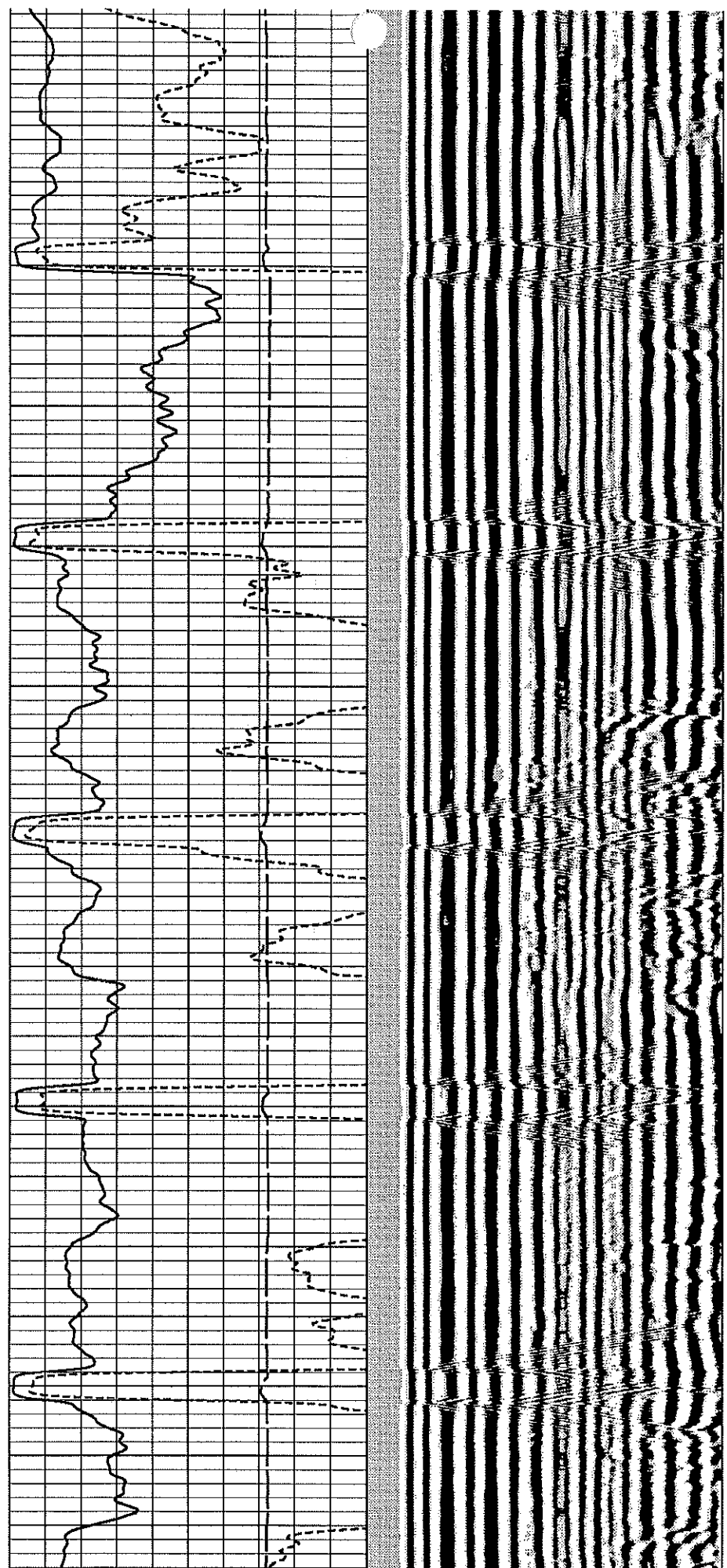
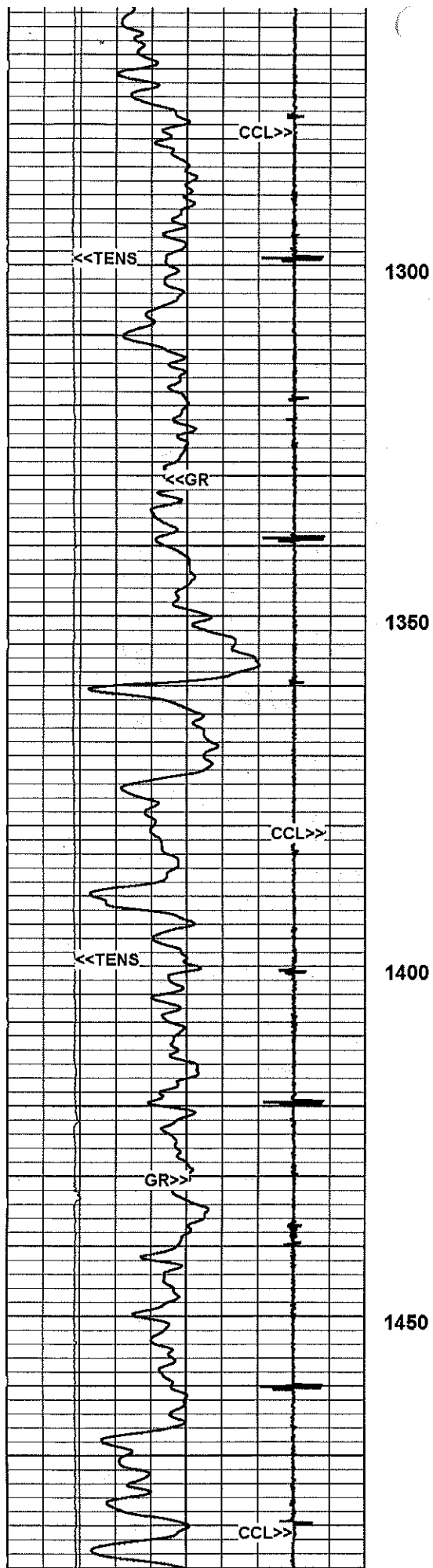


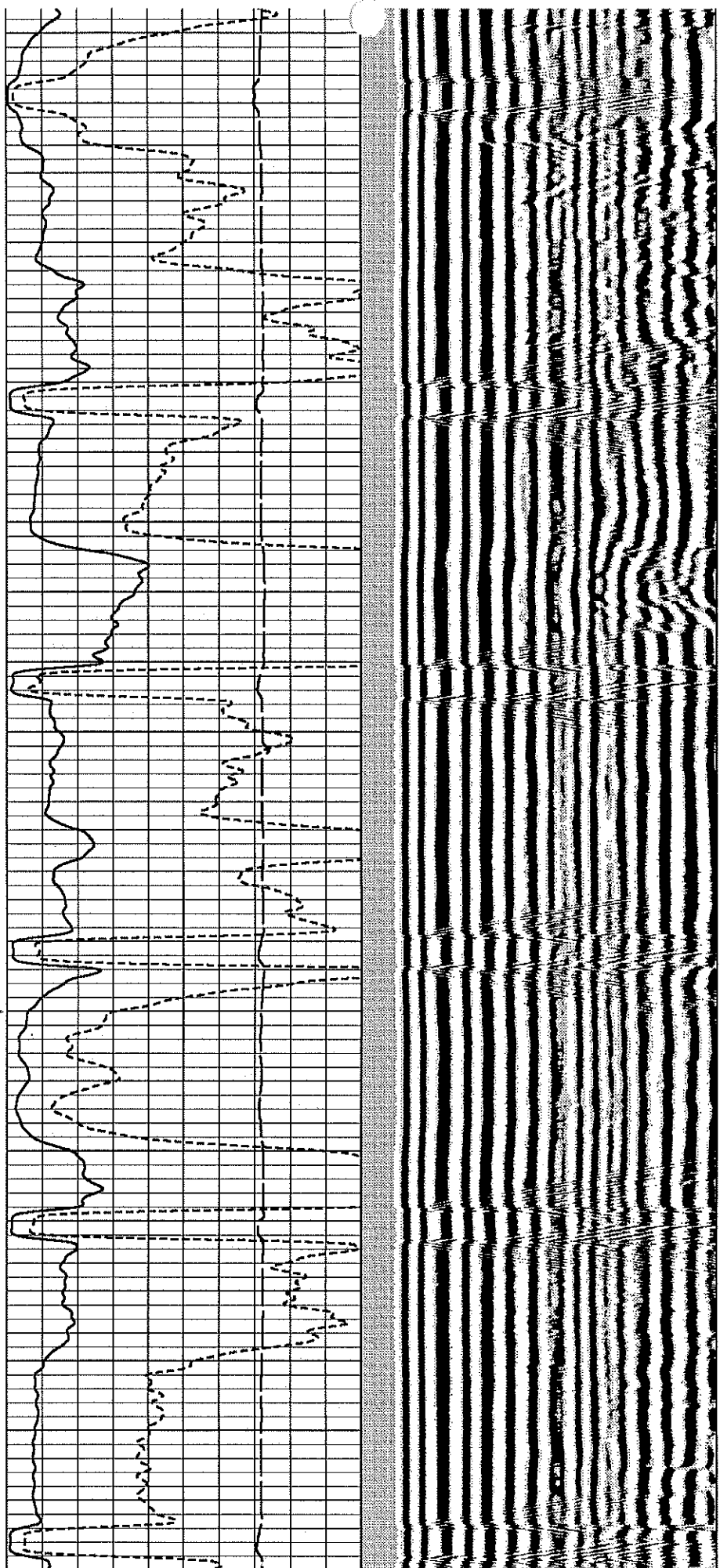
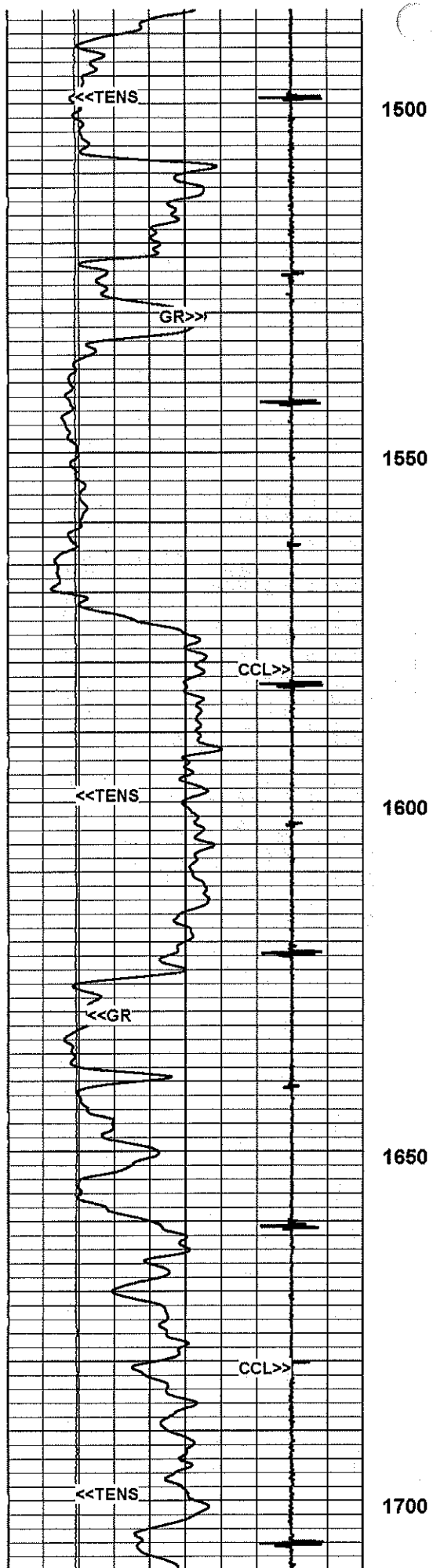


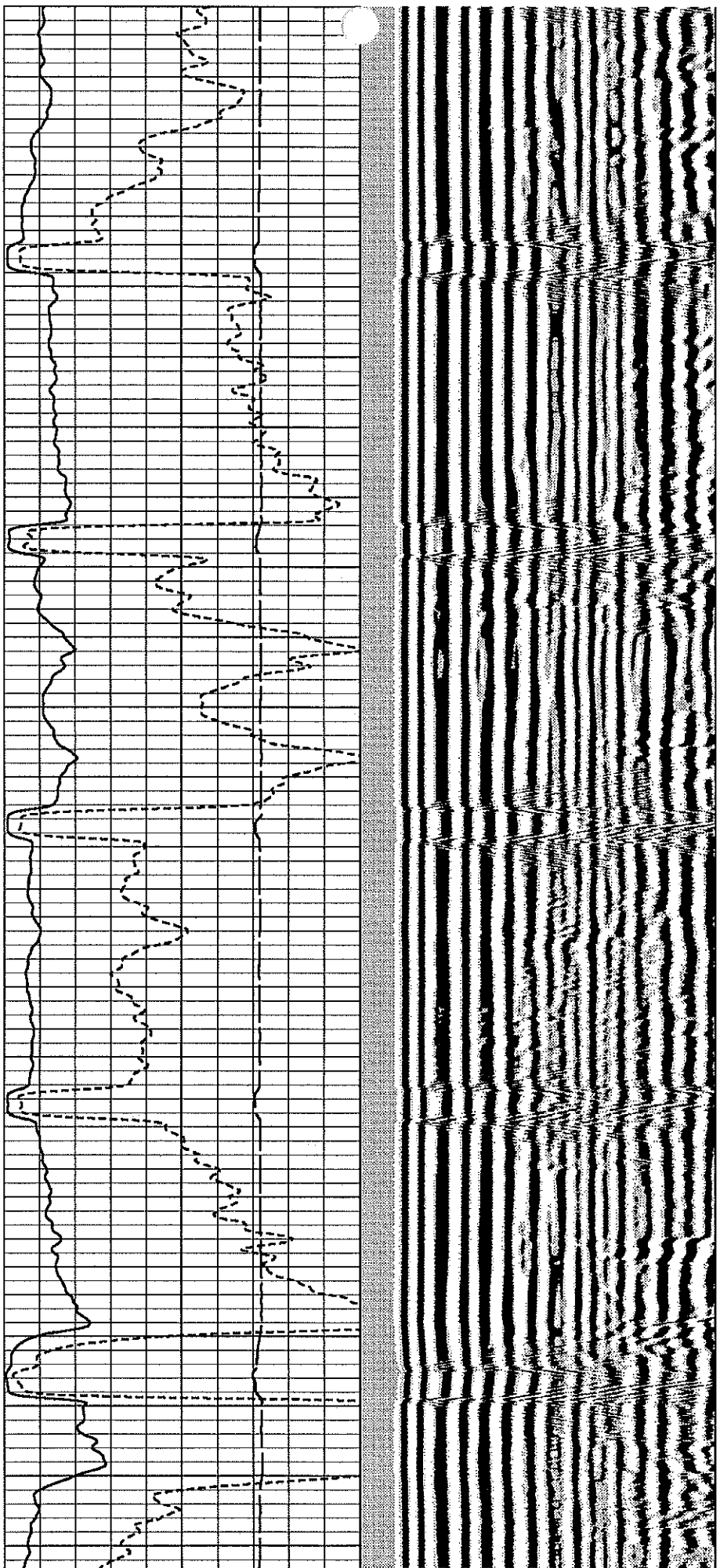
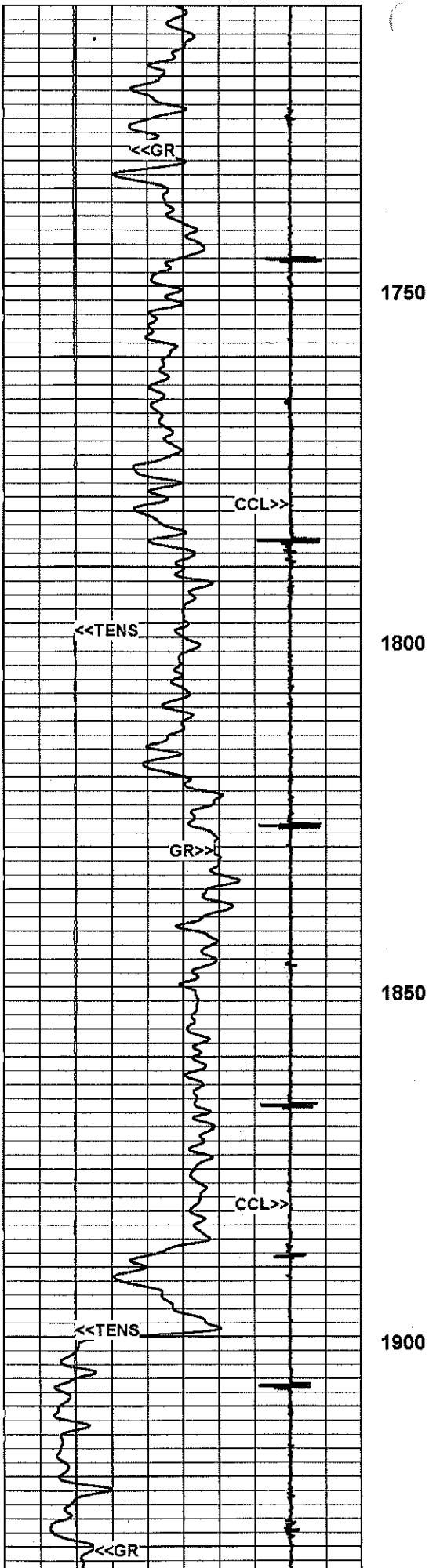


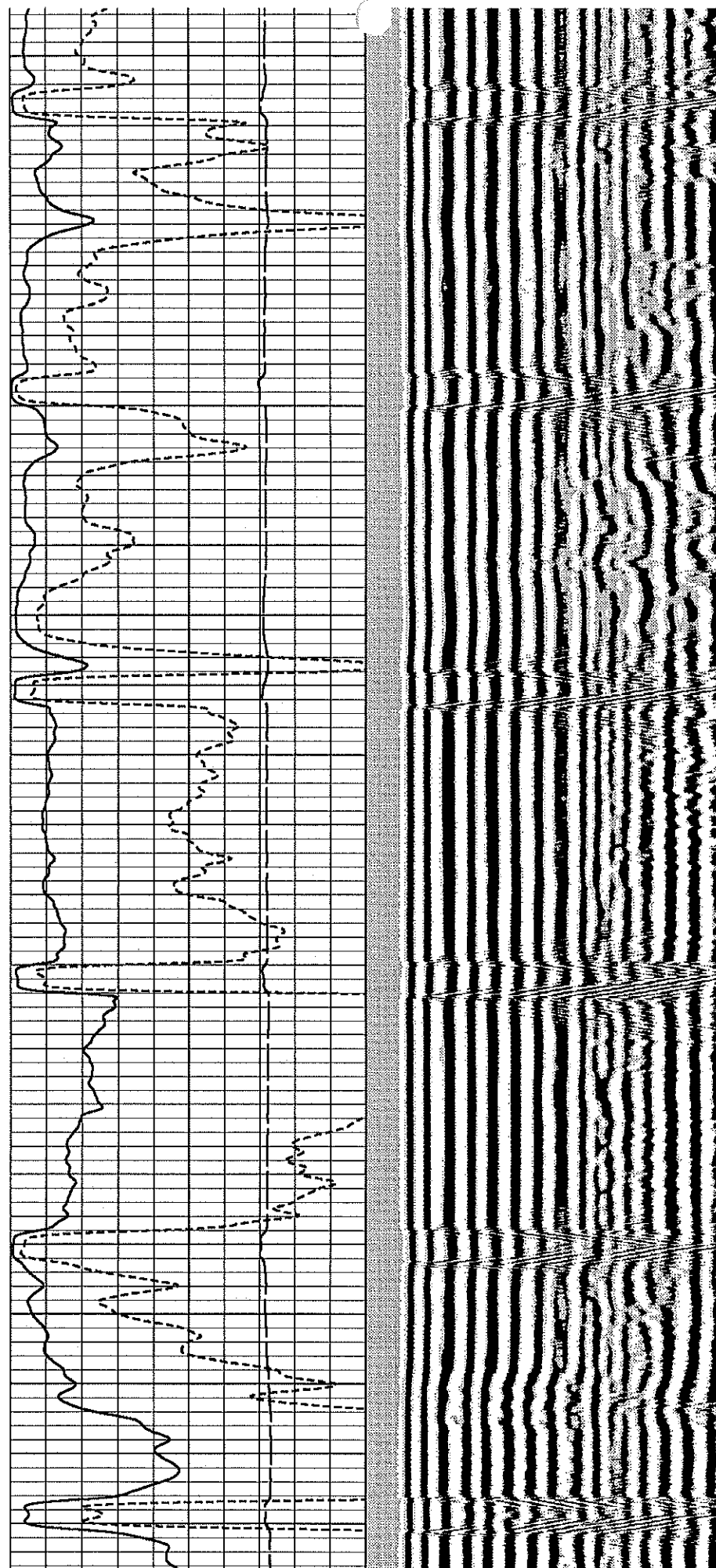
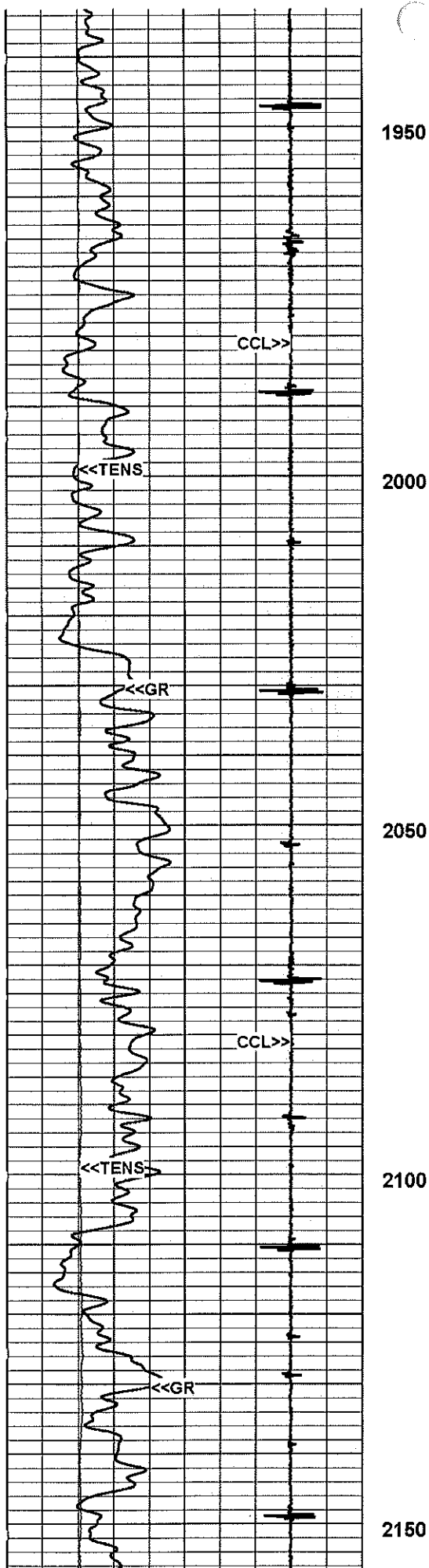


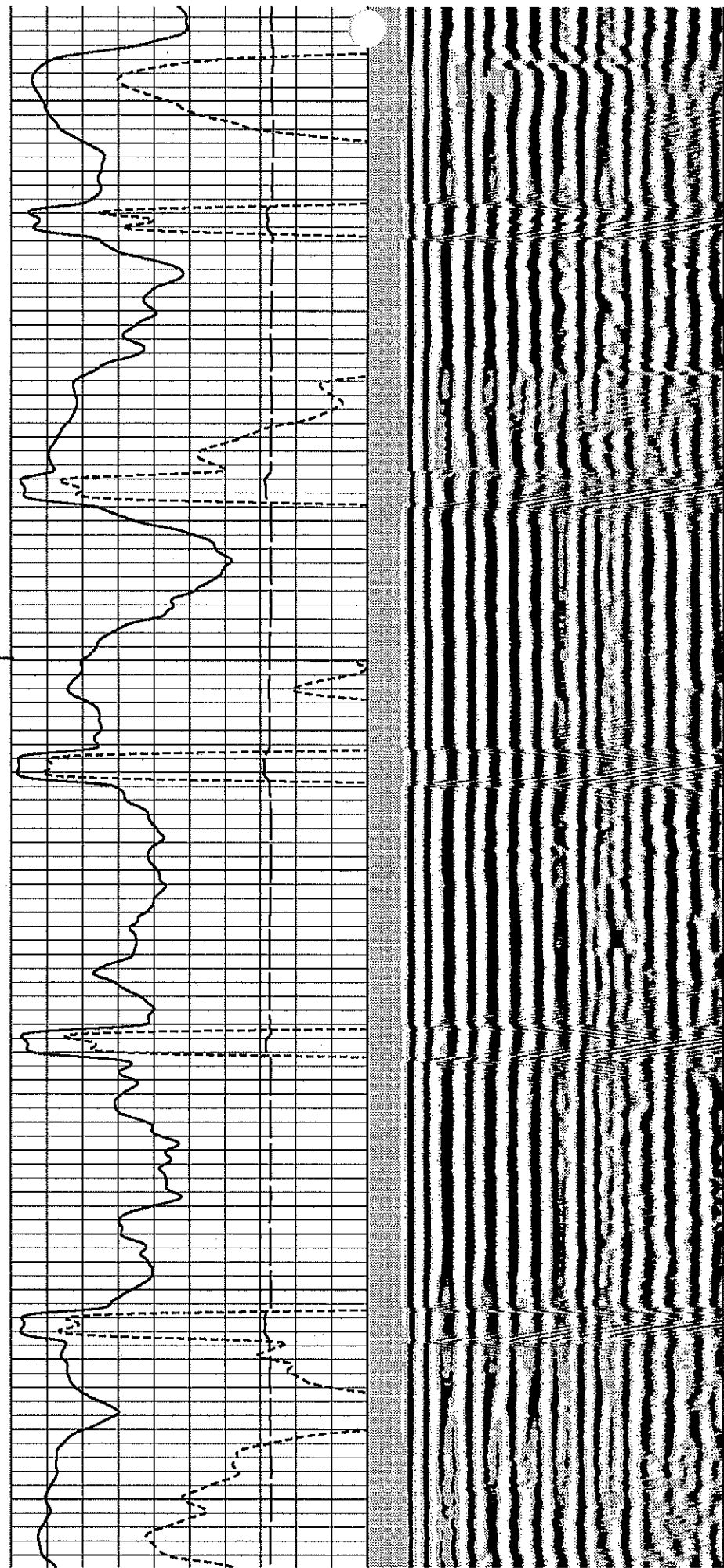
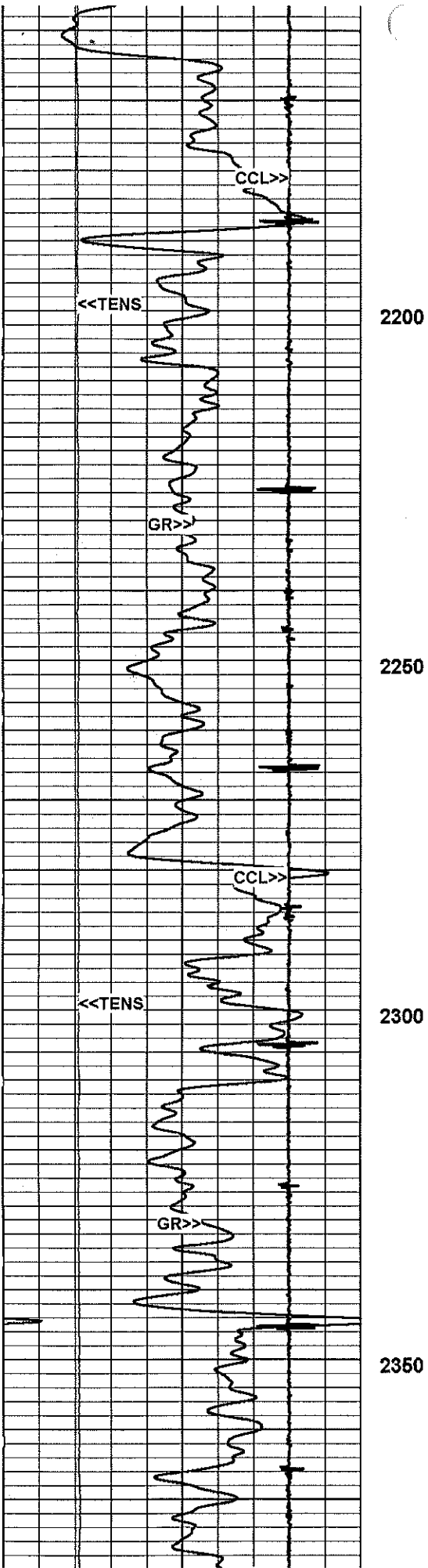


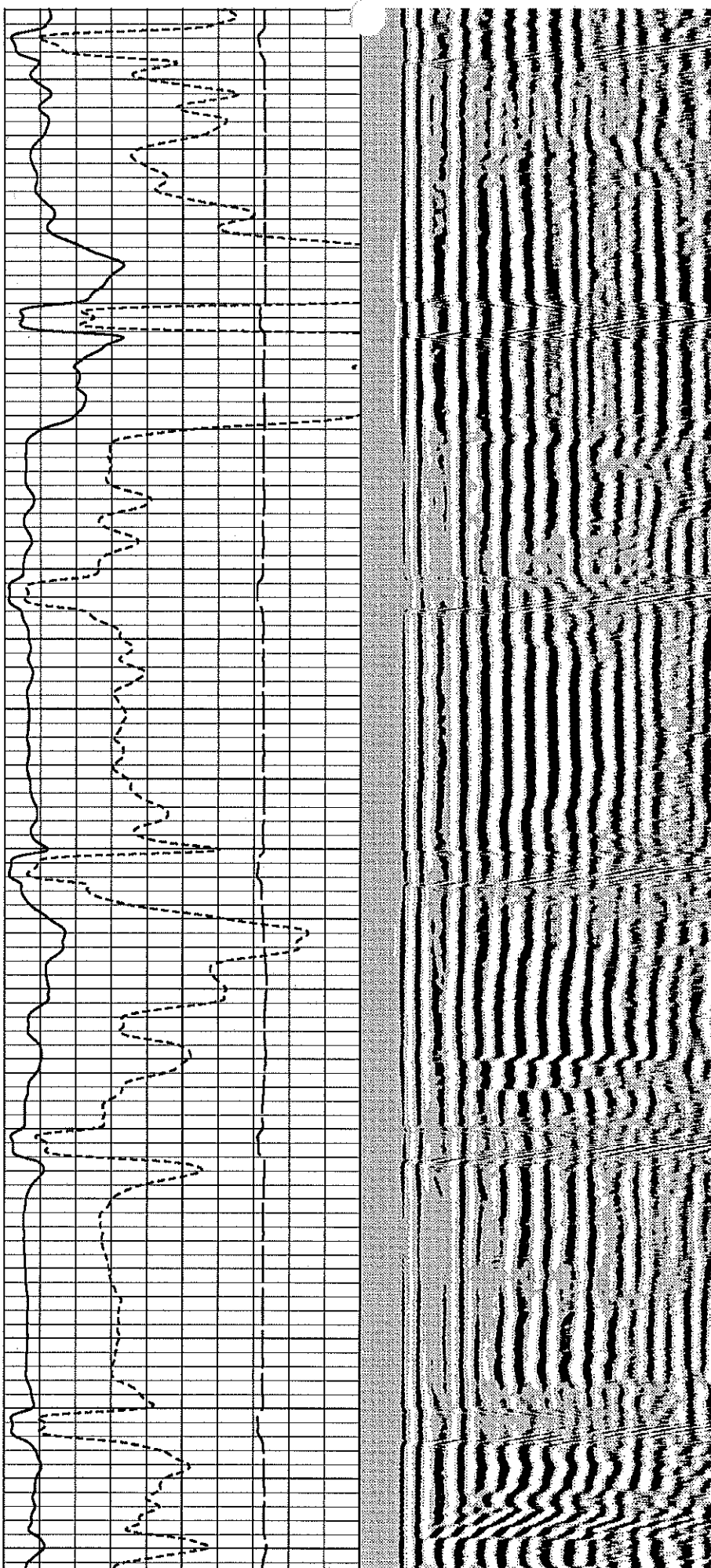
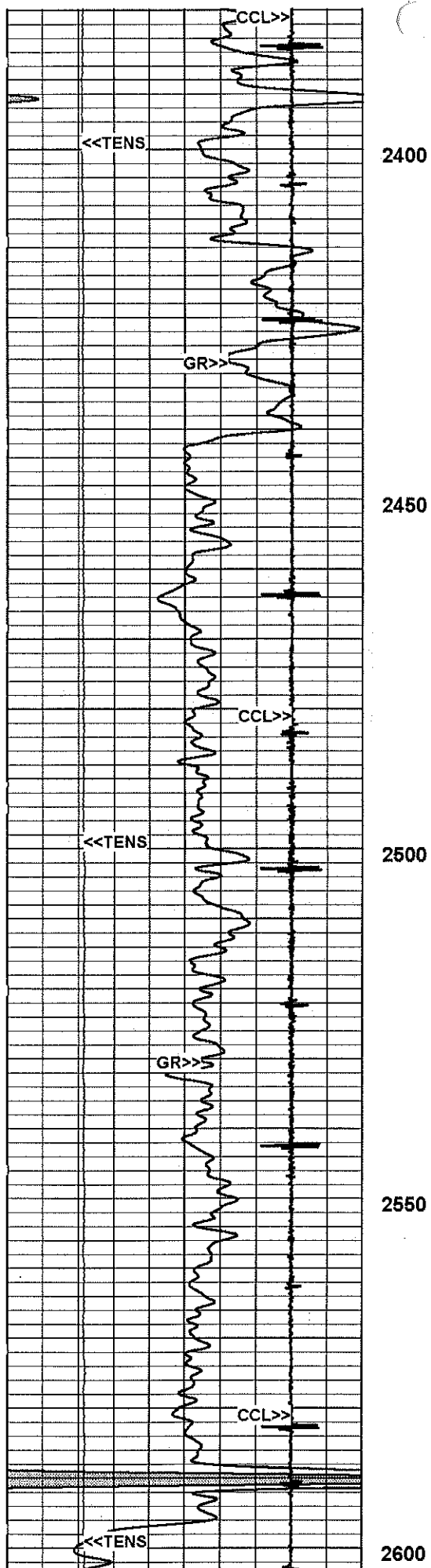


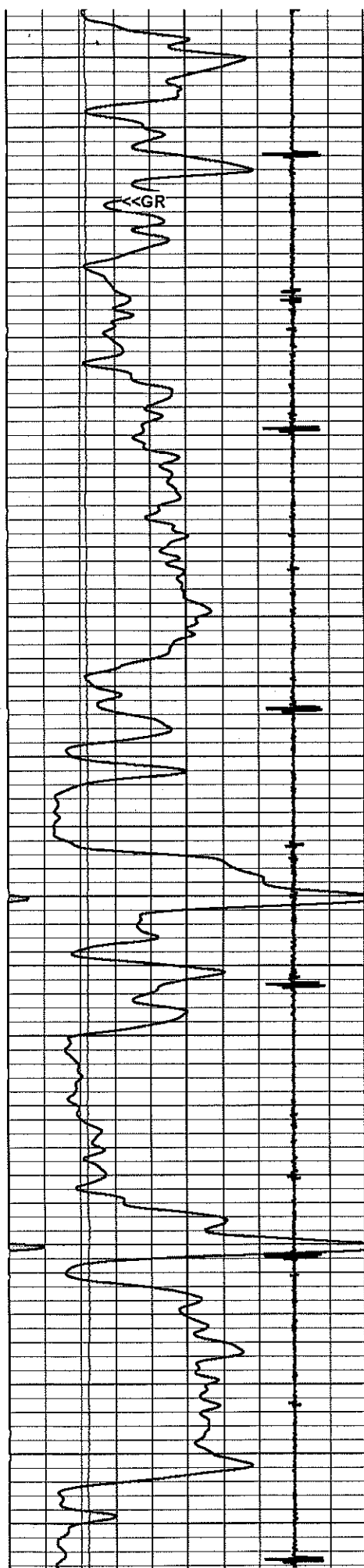










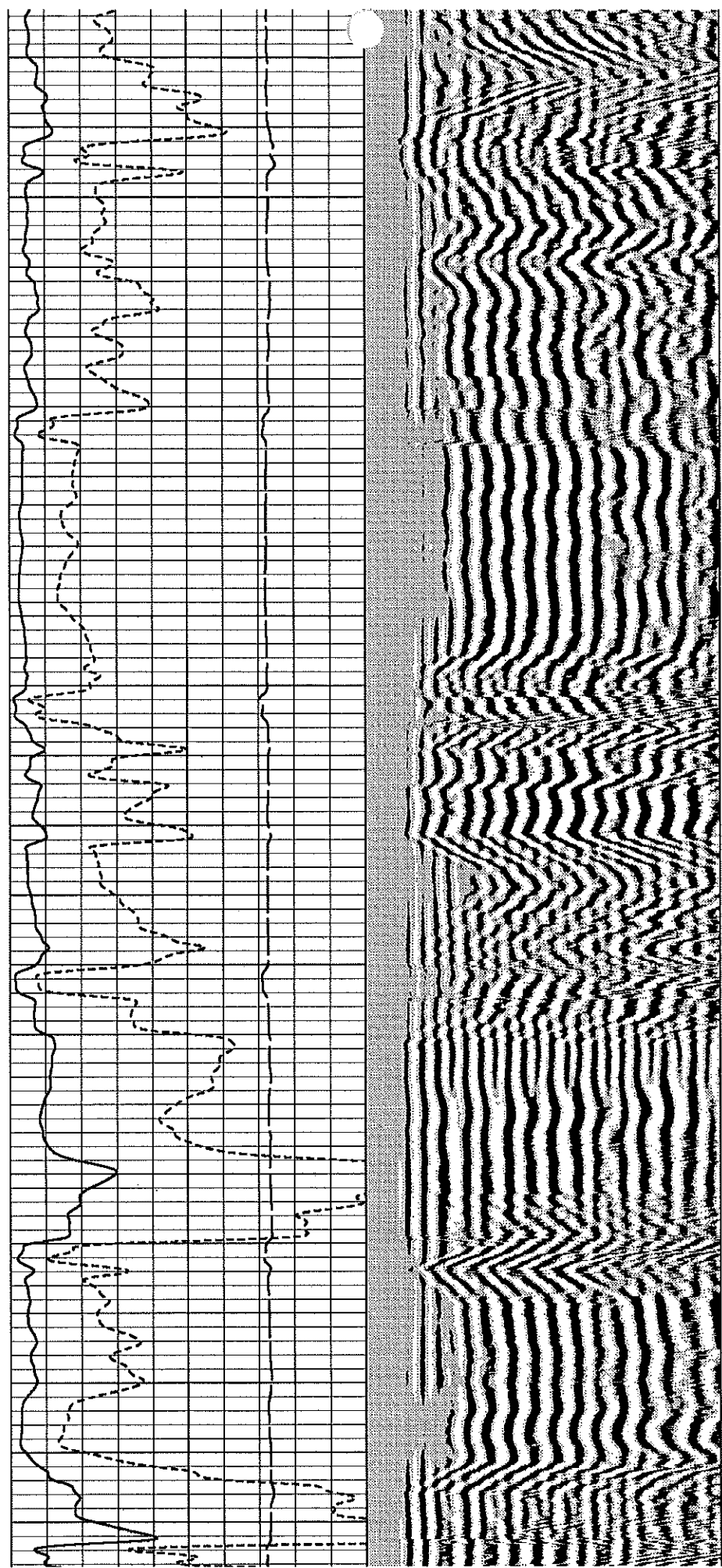


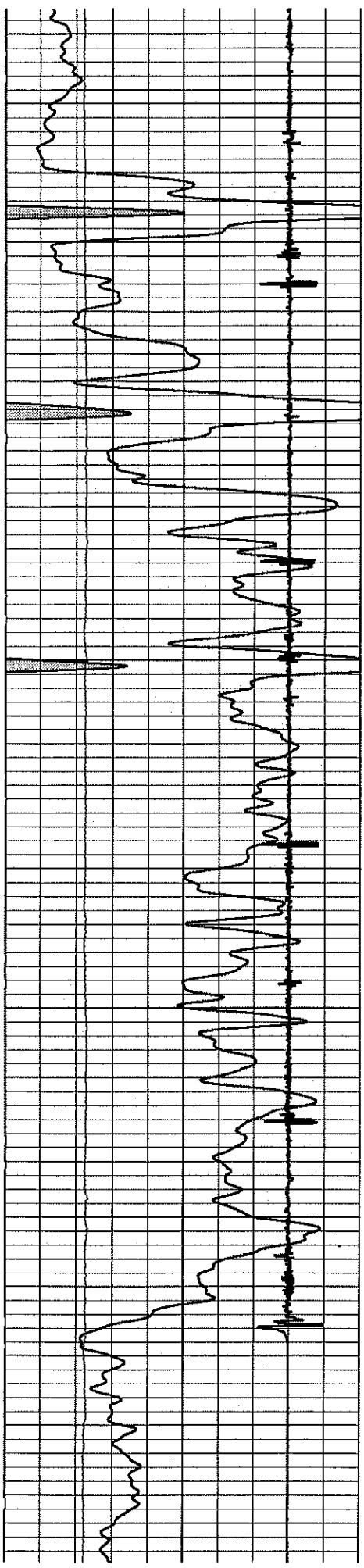
2650

2700

2750

2800





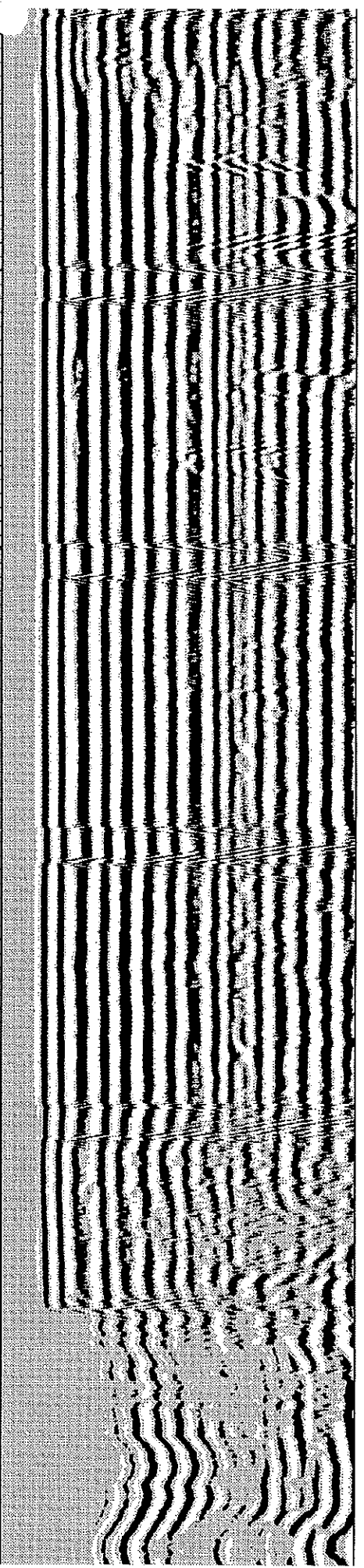
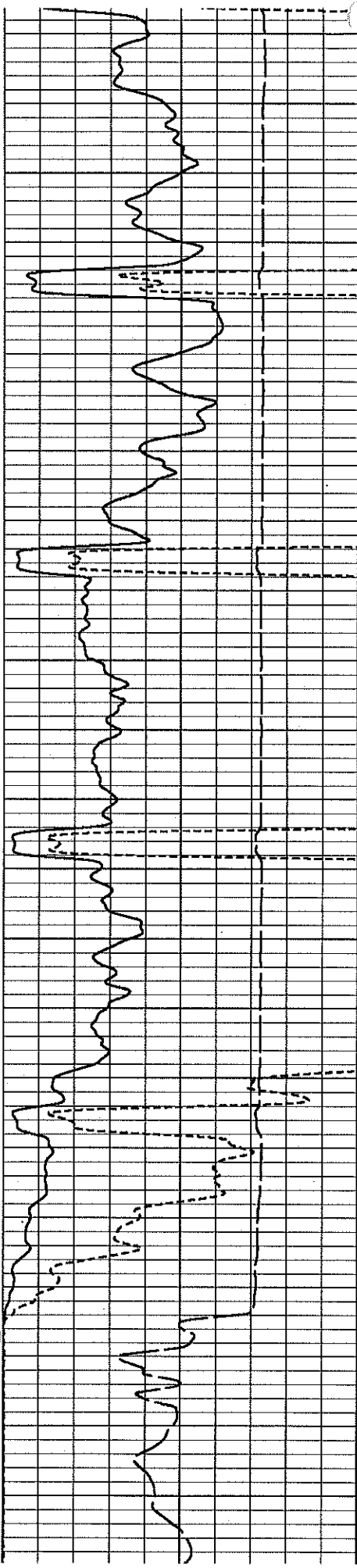
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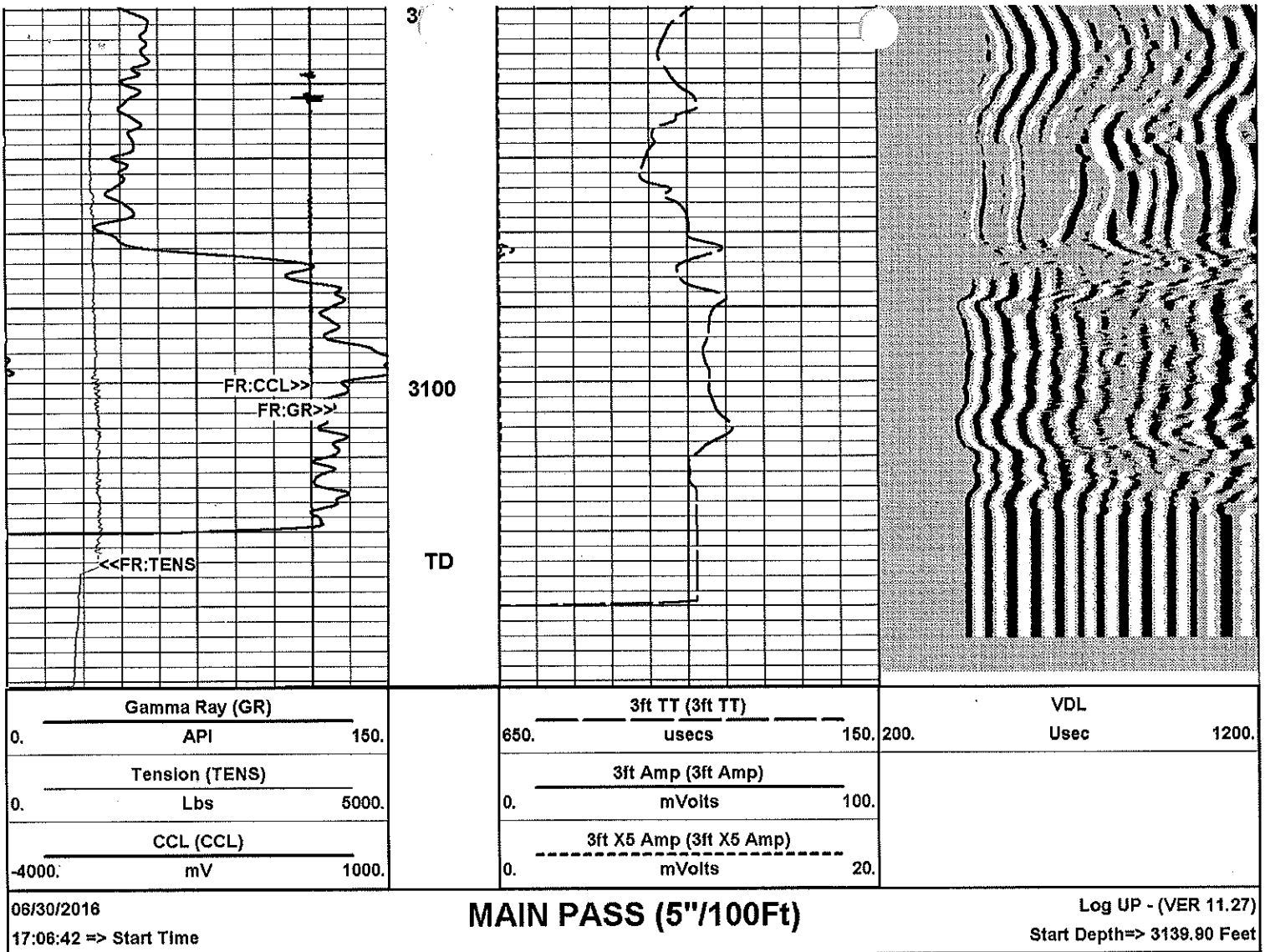
2900

2950

3000

Casing





GAMMA RAY CALIBRATION

SERIAL NUM
BLANKET NUM

RG3015_CH3
1A

MASTER CALIBRATIONS

	BackGrnd	CalVal: 158.000 API	Gain/Offset	CALIBRATION DATE	CALIBRATION TIME
BASE CALS	52.152 - raw	380.790 - raw	0.481 - gain 0.000 - off	M/D/Y> 3/17/2016	H:M:S> 14:5:39

Company	CHAPARRAL ENERGY, LLC.
Well	NBU #10-18
Field	BURBANK
County	OSAGE
State	OKLAHOMA



CEMENT BOND
VARIABLE DENSITY

RELUI

GAMMA RAY
COLLAR LOCATOR